103

S. HRG. 103–32

THE CAREER PATHWAYS ACT OF 1993

Y 4.L 11/4:S.HRG.103-32

The Career Pathways Act of 1993, S.... ARING

BEFORE THE

SUBCOMMITTEE ON EMPLOYMENT AND PRODUCTIVITY

OF THE

COMMITTEE ON LABOR AND HUMAN RESOURCES UNITED STATES SENATE

ONE HUNDRED THIRD CONGRESS

FIRST SESSION

ON

S. 456

TO ESTABLISH SCHOOL-TO-WORK TRANSITION PROGRAMS FOR ALL STUDENTS, AND FOR OTHER PURPOSES

MARCH 3, 1993

Printed for the use of the Committee on Labor and Human Resources

SUPERINTENDENT OF DOCUMENTS
DEPOSITORY
JUN 23 1993
BOSTON PUBLIC LIBRARY
GOVERNMENT DOCUMENTS DEPARTMENT

U.S. GOVERNMENT PRINTING OFFICE

66–734cc WASHINGTON : 1993

For sale by the U.S. Government Printing Office
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402
ISBN 0-16-040716-8

S. HRG. 103–32

THE CAREER PATHWAYS ACT OF 1993

Y 4. L 11/4: S. HRG. 103-32

The Career Pathways Act of 1993, S.... ARING

BEFORE THE

SUBCOMMITTEE ON EMPLOYMENT AND PRODUCTIVITY

OF THE

COMMITTEE ON LABOR AND HUMAN RESOURCES UNITED STATES SENATE

ONE HUNDRED THIRD CONGRESS

FIRST SESSION

ON

S. 456

TO ESTABLISH SCHOOL-TO-WORK TRANSITION PROGRAMS FOR ALL STUDENTS, AND FOR OTHER PURPOSES

MARCH 3, 1993

Printed for the use of the Committee on Labor and Human Resources

SUPERINTENDENT OF DOCUMENTS
JUN 23 1993
BOSTON PUBLIC LIBRARY
GOVERNMENT DOCUMENTS DEPARTMENT

U.S. GOVERNMENT PRINTING OFFICE
66-734cc WASHINGTON : 1993

For sale by the U.S. Government Printing Office
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402
ISBN 0-16-040716-8

COMMITTEE ON LABOR AND HUMAN RESOURCES

EDWARD M. KENNEDY, Massachusetts, *Chairman*

CLAIBORNE PELL, Rhode Island
HOWARD M. METZENBAUM, Ohio
CHRISTOPHER J. DODD, Connecticut
PAUL SIMON, Illinois
TOM HARKIN, Iowa
BARBARA A. MIKULSKI, Maryland
JEFF BINGAMAN, New Mexico
PAUL D. WELLSTONE, Minnesota
HARRIS WOFFORD, Pennsylvania

NANCY LANDON KASSEBAUM, Kansas
JAMES M. JEFFORDS, Vermont
DAN COATS, Indiana
JUDD GREGG, New Hampshire
STROM THURMOND, South Carolina
ORRIN G. HATCH, Utah
DAVE DURENBERGER, Minnesota

NICK LITTLEFIELD, *Staff Director and Chief Counsel*
SUSAN K. HATTAN, *Minority Staff Director*

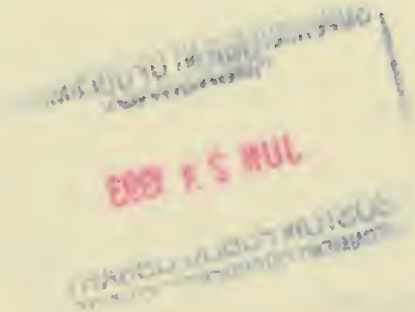
SUBCOMMITTEE ON EMPLOYMENT AND PRODUCTIVITY

PAUL SIMON, Illinois, *Chairman*

TOM HARKIN, Iowa
BARBARA A. MIKULSKI, Maryland
JEFF BINGAMAN, New Mexico
HARRIS WOFFORD, Pennsylvania
EDWARD M. KENNEDY, Massachusetts
(Ex Officio)

STROM THURMOND, South Carolina
DAN COATS, Indiana
JUDD GREGG, New Hampshire
ORRIN G. HATCH, Utah
NANCY LANDON KASSEBAUM, Kansas
(Ex Officio)

BRIAN KENNEDY, *Chief Counsel and Staff Director*
TODD ATWATER, *Minority Counsel*



CONTENTS

STATEMENTS

MARCH 3, 1993

Page

Simon, Hon. Paul, a U.S. Senator from the State of Illinois, prepared statement 1

Wofford, Hon. Harris, a U.S. Senator from the State of Pennsylvania, prepared statement 18

Pennington, Hilary, president, Jobs for the Future, Cambridge, MA; Gordon M. Ambach, executive director, Council of Chief State School Officers, Washington, DC; Jean Wolfe, State director, Pennsylvania Youth Apprenticeship Program, and Torry Tag, junior, Eastern High School, York County, PA 20

Prepared statements:

Ms. Pennington 60

Mr. Ambach 65

Scott, Dennis M., technical director, United Brotherhood of Carpenters and Joiners of America, Washington, DC; Raymond Robertson, Building and Construction Trades Department, AFL–CIO, Washington, DC; George Bliss, assistant director, Training Department, United Association of Journeymen and Apprentices; and Leon Reddy, president, National Coalition for Advanced Manufacturing, Washington, DC 33

Prepared statements:

Mr. Scott 68

Mr. Reddy (with attachments) 74

Thurmond, Hon. Strom, a U.S. Senator from the State of South Carolina 45

Link, Harvey, president, American Vocational Association, Alexandria, VA; Carol Skornicka, secretary, Wisconsin Department of Industry, Labor and Human Resources; Robert J. Ivry, senior vice president, Manpower Development Resource Corp., New York, NY, and Mary Gonzales Koenig, city of Chicago, Mayor's Office of Employment and Training 46

Prepared statements:

Mr. Link 47

Ms. Skornicka (with an attachment) 80

Mr. Ivry 85

ADDITIONAL MATERIAL

Articles, publications, letters, etc.:

Statement of Jill Miller 93

THE CAREER PATHWAYS ACT OF 1993

WEDNESDAY, MARCH 3, 1993

U.S. SENATE,
SUBCOMMITTEE ON EMPLOYMENT AND PRODUCTIVITY,
OF THE COMMITTEE ON LABOR AND HUMAN RESOURCES,
Washington, DC.

The subcommittee met, pursuant to notice, at 1:35 p.m., in room SD–430, Dirksen Senate Office Building, Senator Paul Simon (chairman of the subcommittee) presiding.

Present: Senators Simon and Wofford.

OPENING STATEMENT OF SENATOR SIMON

Senator SIMON. The subcommittee will come to order.

We are holding a hearing today on legislation that has been introduced, and I am pleased to have Senator Harris Wofford, the distinguished new Senator—no longer "new"—from Pennsylvania as a cosponsor on this "Career Pathways" legislation.

What we need, clearly, is an education system that creates pathways both to college and to careers. And I am pleased to say there have been a number of people who have been working in this area. Senator Kennedy, the chairman of this full committee, has demonstrated leadership in this area with his "High Skills, Competitive Workforce Act." President Clinton has talked a great deal about this area. Secretary Reich and Secretary Riley have both demonstrated a keen interest in this area. We look forward to working closely with the administration as this proceeds.

What I think is clear is that there are six key principles that should guide us, as we learned as we drafted this bill. They include, first, that the use of the term "youth apprenticeship" is sometimes misleading. These programs are not apprenticeship programs as they have been traditionally known in this country. They have some similar elements, but they do not track participants into a narrow career choice, and they do not come with the guarantee of a job, both of which are implied with the use of the word "apprenticeship."

We are also trying to avoid what the Germans have in their system, where you make choices very early, and you have to go down one career path or another career path. We want to keep those options open.

Second, the best way to establish a national career pathways system is from the ground up, building upon the experience of local and State successes, and we will hear about that today.

Third, there ought to be flexibility.

Fourth, we need the involvement of employers if this is to work.

Fifth, crucial for all of this is that there is cooperation between education, industry, labor, trade associations and government.

And finally, one of the things we have to do is to avoid labeling students, so that even by implication we do not suggest that anyone involved is sent down a particular career choice. We want to keep those choices open for young people.

I have had a chance to visit with some schools that are working in this area. I visited Monday in New York City, at Martin Luther King High School, which is doing work in this area. So I think we can learn a great deal, and I am sure we are going to learn from our witnesses today.

Let me call now on my colleague, Senator Wofford, before I call on the witnesses.

[The prepared statement of Senator Simon follows:]

PREPARED STATEMENT OF SENATOR SIMON

Today we will hear testimony about the need to improve, for all youth, the transition from school to employment. We need an education system that creates pathways both to college and to careers. Last Thursday, I was joined by my distinguished colleague from Pennsylvania, Senator Harris Wofford, in introducing the Career Pathways Act of 1993. The Career Pathways Act would provide in-school young people with an opportunity to gain career skills through a rigorous academic and work-based learning system.

I am pleased to see representatives from education, the manufacturing industry, labor unions, and State and local school-to-work transition programs here today to continue the dialog on better preparing our youth for career options. It is clear we have leadership in the administration, among the Governors and from practitioners in the field to help develop the Federal role in improving school-to-work transition.

Career Pathways for young people is just one part of a broader national work force preparation strategy. Senator Kennedy has demonstrated his leadership in helping develop a national policy with his sponsorship last Congress of the High Skills Competitive Workforce Act. President Clinton has provided the country with a new vision of education and employment. Secretary Reich and Secretary Riley, testifying jointly before the Senate Labor and Human Resources Committee recently, made it clear that the Department of Education and the Department of Labor have made the development of national work force preparation policy their major *joint* priority. Developing National Skill Standards, both educational and occupational, creating career pathways for all youth, and promoting lifelong education and training for the entire labor force are key components of a national policy. I look forward to working with the administration to move forward on a national policy as soon as possible.

There has been a fundamental failure in our Nation's education and training system. At the National, State, and local levels we have not been able to coordinate our employment and training efforts. Young people have suffered the consequences of this lack of coordination. According to the General Accounting Office and the Congressional Research Service, only 12% of high school freshman ultimately complete their college education (within 6 years). This

means that the majority of young people are not participating in the traditional pathways to high-skill, high-wage careers. This represents an under-investment in our Nation's future.

Structural changes that have moved us from a manufacturing- to a service-based economy, increasing global competition, and our failure to educate and prepare many high school age students for careers have resulted in a dramatic decline in earnings for those who do not graduate from college. Furthermore, this hampers our Nation's ability to increase productivity and continue to attract high-wage, high-skill employers. Employers are demanding a broader range of skills from entry-level workers and need to know that young people can work in innovative, high-performance work organizations.

The Career Pathways Act is based on the input from two hearings held by my Subcommittee on Employment and Productivity held in December (here and in Chicago), and on numerous proposals and suggestions from educators, labor, industry, and youth training experts.

From these discussions we learned six principals that guided us in drafting this bill. First, the use of the term "Youth Apprenticeship" is misleading. These programs are not apprenticeship programs as they have been traditionally known in this country. They have some similar elements, but they do not track participants into a narrow career choice, and they do not come with the guarantee of a job. Some programs are more like pre-apprenticeships, others are like Career Academies, others are adaptations of Vocational Education, Tech-Prep, cooperative education, or other programs.

Many people have struggled with the issue of what we call these programs: Apprenticeship-like, apprenticeship-style, pre-apprenticeship, work-based learning. We have chosen to call them "CAREER PATHWAYS" which exemplifies the goals of this concept: to create career pathways or options for all young people.

Second, the best way to establish a national CAREER PATHWAYS program system is from the ground up, building upon local and State successes.

Third, there is not one specific model for a successful CAREER PATHWAYS program, as long as certain basic elements are there, local people must be given the flexibility to fashion programs that meet their needs.

Fourth, employers should get involved because this is a necessary human capital investment, and because, as responsible corporate citizens, they should contribute to the welfare of their community. While some incentives may be necessary—particularly for small employers—we should examine this issue carefully before providing any significant financial incentives for employer participation.

Fifth, successful European youth apprenticeship systems show us that it is crucial for industry, trade associations and labor unions to participate in the development of national skill standards and school-to-employment programs. In this country, the Federal Government needs to help support that effort.

Finally, a successful, national CAREER PATHWAYS system must not label or target any particular group of students. The program must aim to improve schools and ensure options for all youth.

The CAREER PATHWAYS program is only one piece of the puzzle in our effort to provide a quality system for assuring a successful transition from school to employment. It represents a valuable step forward in providing a quality program for young people in high school. The CAREER PATHWAYS program must work hand in hand with efforts to establish educational and occupational goals and standards, as well as systemic school reform.

[Except from the Congressional Record, February 25, 1993 follows:]

By Mr. SIMON (for himself and Mr. WOFFORD):

S. 456. A bill to establish school-to-work transition programs for all students, and for other purposes; to the Committee on Labor and Human Resources.

CAREER PATHWAYS ACT OF 1993

Mr. SIMON. Mr. President, I am pleased to be introducing this afternoon in the U.S. Senate, with my distinguished colleague from Pennsylvania, the Career Pathways Act of 1993.

It is an attempt to pull business, labor, and education together so we provide greater help to those who are not college bound.

It does not suggest that those who take part in this cannot eventually change their course. It is not rigid as it is in Germany, for example, where, if you choose at an early age, you are going to go in one direction, you have to stay in that direction. But it encourages the practical cooperation that really can be meaningful in the lives of young people. Frankly, I think it can be very helpful in reducing dropout rates, in developing skills, the skills that I hear over and over again are needed. It meshes two heads. When I meet with business leaders, they say over and over again, "We cannot find the quality people we need for employees." Then when I talk to people in communities where you have high unemployment, they say, "We cannot find the jobs." This meshes these two things and, I think, moves in the right direction.

The Career Pathways Program provides young people in school with an opportunity to gain career skills through a rigorous academic and work-based learning system.

President Clinton has demonstrated a strong commitment to this kind of investment in human capital. In his book, "Putting People First," he says he wants to "Bring business, labor, and education leaders together to develop a national apprenticeship-style program that offers non-college-bound students valuable skills training, with the promise of good jobs when they graduate."

More recently, in his State of the Union Address, the President reiterated this commitment, pledging a significant expansion of youth apprenticeship-style programs. The Career Pathways Program is designed to meet this goal.

In 1988, the William T. Grant Foundation issued a report called "The Forgotten Half: Pathways to Success for America's Youth and Young Families." "The Forgotten Half" poignantly outlined a fundamental failure in our Nation's education and training system: We do not provide enough assistance to help young people make the transition from school to employment. About half of our students never to go college, and half of those who do never obtain degrees. Young people who do pursue postsecondary education often receive significant public and private aid, but those who do not go on to college many times receive virtually no help at all.

The Federal Government offers aid and loans to college students, and assists in funding the college and university research programs from which many college students benefit. Yet there is little Federal investment directed toward success for noncollege bound youth. The primary Federal job training program available to the foregotten half is title II of the Job Training Partnership Act [JTPA]. Only poor people are eligible for services under title II, and JTPA is so underfunded that less than 5 percent of the eligible poor receive services. To make matters worse, in the past, there have been abuses of the JTPA program that hindered the program's effectiveness. Last year, I authored changes that are now addressing those abuses. Still, since JTPA is woefully underfunded and targeted at only the poor, it will barely make a dent in the need. JTPA and other targeted programs must remain a part of our youth training strategy, but we must do more.

Structural changes that have moved us from a manufacturing- to a service-based economy, increasing global competition, and our failure to help the foregotten half, have resulted in a dramatic decline in earnings for those who do not graduate from college. As the National Center on Education and the Economy illustrated in the report "America's Choice: High Skills or Low Wages":

> The choice that America faces is a choice between high skills and low wages. Gradually, silently, we are choosing low wages. We still have time to make the other choice—one that will lead us to a more prosperous future. But to make this choice, we must fundamentally change our approach to work and education.

The Career Pathways Act is one critical step in moving America toward a high skill, high wage economy.

The bill is based on the input at two hearings held by my Subcommittee on Employment and Productivity held in December, here and in Chicago, and on numerous proposals and suggestions from educators, labor, industry, and youth training experts.

From these discussions we learned six key principles that guided us in drafting this bill. First, the use of the term youth apprenticeship is misleading. These programs are not apprenticeship programs as they have been traditionally known in this country. They have some similar elements, but they do not track participants into a narrow career choice, and they do not come with the guarantee of a job. Some programs are more like preapprenticeships, others are like career academies, others are adaptations of vocational education, tech-prep, cooperative education, or other programs.

Many people have struggled with the issue of what to call these programs: Apprenticeship-like, apprenticeship-style, preapprenticeship, work-based learning? We have chosen to call them career pathways which exemplifies the goals of this concept: To create career pathways or options for all young people.

Second, the best way to establish a national career pathways system is from the ground up, building upon local and State successes.

Third, there is not one specific model for a successful Career Pathways Program, as long as certain basic elements are there, local people must be given the flexibility to fashion programs that meet their needs.

Fourth, employers should get involved because this is a necessary human capital investment, and because, as responsible corporate citizens, they should contribute to the welfare of their community. While some incentives may be necessary—particularly for small employers—we should examine this issue carefully before providing any significant financial incentives for employer participation.

Fifth, successful European youth apprencticeship systems show us that it is crucial for industry, trade associations and labor unions to participate in

the development of national skill standards and school-to-employment programs. In this country, the Federal Government needs to help support that effort.

Finally, a successful, national career pathways system must not label or target any particular group of students. The program must aim to improve schools and ensure options for all youth.

In determining the basic elements for successful career pathways programs, we have relied heavily on the work of Samuel Halperin, Patricia McNeil, Alan Zuckerman, and others with the American Youth Policy Forum, Hilary Pennington from Jobs for the Future, and Rob Ivry with the Manpower Development Research Corp.

I look forward to hearings and additional input from my colleagues on how best to ensure career pathways for all youth.

The Career Pathways Program is only one piece of the puzzle in our effort to provide a quality system for assuring a successful transition from school to employment. It represents a valuable step forward in providing a quality program for young people in high school. We must not forget, however, the pressing needs of high school dropouts and other out-of-school youth. Any comprehensive school-to-employment effort must deal with their compelling needs. In addition, the Career Pathways Program must work hand in hand with efforts to establish educational and occupational goals and standards, as well as systemic school reform.

Senator WOFFORD and I look forward to working with the President, Secretary Reich, and Secretary Riley, who have all made work force preparation a priority for our Nation. Senator KENNEDY, the chairman of the Labor and Human Resources Committee, is also a leader in this area, as he is on so many important issues, and I look forward to working with him as the committee moves forward on this concept. I would be remiss if I did not also mention the invaluable work of Senator NUNN and Senator BREAUX who have for some time been leaders on the concept of work-based learning.

Mr. President, I ask unanimous consent that the text of the legislation, appear in the RECORD at the conclusion of our remarks.

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

S. 456

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Career Pathways Act of 1993".

SEC. 2. FINDINGS AND PURPOSE.

(a) FINDINGS.—The Congress finds that—

(1) the workplace skills required by high school graduates have changed dramatically;

(2) if the United States is going to be competitive in the world market, all students must leave secondary school with high skills;

(3) collaboration between schools and employers can improve academic instruction and workplace skills of students; and

(4) linking academic learning to the world of work can help promote an enthusiasm and motivation for learning in all students.

(b) PURPOSE.—The purpose of this Act is to coordinate or build upon existing programs and to promote the establishment of new programs that link schools and businesses to integrate academic learning and career skills, in order to—

(1) promote high academic standards;

(2) provide students with work skills recognized by an industry, in addition to a high school diploma and the potential for post-secondary education;

(3) involve students of all backgrounds in a program that links education with the workplace and involves students and employers in their communities;

(4) encourage teacher innovation and teamwork;

(5) integrate school-industry partnerships with school reform and restructuring efforts; and

(6) remove barriers to entry into all high-wage, high-skill occupations for young people regardless of race, socioeconomic status, or gender.

SEC. 3. CAREER PATHWAYS PROGRAM.

The Job Training Partnership Act (29 U.S.C. 1501 et seq.) is amended by adding at the end the following new title:

"TITLE VIII—CAREER PATHWAYS PROGRAMS

"PART A—GENERAL PROVISIONS

"SEC. 801. DEFINITIONS.

"For purposes of this title, the following definitions apply:

"(1) CAREER PATHWAYS.—The term 'Career Pathways' (hereafter referred to in this title as 'CP') programs includes any eligible partnerships which provide school-to-work transition programs that are for all students and that meet the requirements described in section 811(b)(5). School-to-work transition programs such as preappprenticeship programs, career academies, mentoring programs, tech prep, co-op education, youth programs under parts B and C of title II of the Job Training Partnership Act, vocational education, school-based enterprises, or community service internships, that provide services that meet the requirements described in section 811(b)(5) may be considered as CP programs.

"(2) COACHING.—The term 'coaching' means demonstrating skills a student will need to perform assigned tasks, monitoring and critiquing a student's performance, and modeling good performance (such as thinking through decisions out loud).

"(3) COUNSELING.—The term 'counseling' means one-on-one discussions between counselors and students that help students resolve any personal, academic, or employment-related problems and that aid students in developing career options with attention to gender, race, or socioeconomic impediments to career options.

"(4) ELIGIBLE PARTNERSHIP.—

"(A) IN GENERAL.—The term 'eligible partnership means the collaboration or partnership of—

"(i) a school or local education agency;

"(ii) an employer or an employer association; and

"(iii) a labor union or employee representative.

"(B) OTHER PARTNERSHIPS.—An eligible partnership may also include—

"(i) a nonprofit organization;

"(ii) a community-based organization;

"(iii) an institution of higher education;

"(iv) a State employment agency; or

"(v) the private industry council.

"(5) EMPLOYEE REPRESENTATIVE.—The term 'employee representative' means an individual or association in a nonsupervisory role designated to represent the best interests of CP program students at the workplace with respect to all Federal and State employee protection laws, where a labor union representative does not exist.

"(6) INDUSTRY.—The term 'industry' means any employers, employer associations, and labor unions (or employee associations where labor unions do not exist), that participate in similar product or service markets.

"(7) MENTORING.—The term 'mentoring' means helping a student socialize and assimilate into a workplace culture by helping such student solve problems, advising such student on academic and career questions, and providing role models to students interested in participating in occupations which have traditionally been gender-specific.

"(8) PREAPPRENTICESHIP PROGRAM.—The term 'preapprenticeship program' means a program that provides academic and work-related instruction to equip students with the skills necessary to enter registered apprenticeship programs.

"(9) SCHOOL-TO-WORK TRANSITION.—The term 'school-to-work transition' means academic instruction and work-based learning that integrate academic, technical and occupational skills for the purposes of—

"(A) creating career and higher education options for high school graduates;

"(B) removing the labels of and barriers between college-bound and noncollege-bound students; and

"(C) removing the barriers to career-entry employment for youth.

"(10) WORK-BASED LEARNING.—The term 'work-based learning' means instruction that occurs at a workplace which integrates academic instruction and occupational skills, and that includes the use of a formal plan for managing a student's work experience. Such plan should map out sequential activities to teach workplace skills, build academic and technical skills, and provide such student with a comprehensive picture of interrelated occupations. Such plan should also identify one or more employees at the worksite who will provide coaching and mentoring for such student.

"SEC. 802. AUTHORIZATION OF APPROPRIATIONS.

"There are authorized to be appropriated to carry out this title $250,000,000 for fiscal year 1994, $500,000,000 for fiscal year 1995, and such sums as may be necessary for each of the fiscal years 1996, 1997, and 1998.

"SEC. 803. ESTABLISHMENT OF A GRANT PROGRAM.

"(a) OVERALL PROGRAM AUTHORITY.—The Secretary, in consultation with the Secretary of Education, shall—

"(1) award CP program grants to eligible partnerships;

"(2) award grants to States to develop or expand statewide CP systems;

"(3) award grants to an industry or trade association or a labor union to design and implement an industry-wide or occupation-wide CP program;

"(4) administer a system to inform employers and educators about CP programs with special consideration given to increasing the diversity of skilled youth, and to encourage such employers and educators to participate in CP programs, particularly programs located in economically disadvantaged areas;

"(5) establish or fund an entity to provide technical assistance to States, educators, employers, eligible partnerships, labor

unions or employee representatives, or schools, particularly schools with high concentrations of economically disadvantaged students, with respect to establishing and maintaining CP programs;

"(6) assist national employer associations, labor unions, and training professionals in the research and development of national skills standards and certification that employ valid and unbiased methods of assessment;

"(7) make every effort to ensure that CP grants serve a diverse population in terms of gender, socioeconomic status, geographic location, and rural and urban settings;

"(8) provide a uniform format (that is in accordance with other Federal education and human resource program reporting requirements, to the extent possible) for program grant recipients to annually report program outcomes that identify program outcomes by age, gender, and race;

"(9) conduct an annual survey of all planning grant recipients to determine the progress of statewide school-to-work transition systems;

"(10) study the need for a national CP system and not later than December 31, 1995, prepare and submit to the appropriate Committees of Congress a report containing findings and recommendations with respect to such study;

"(11) review and approve statewide plans for CP programs; and

"(12) evaluate the CP programs and, not later than December 31, 1995, and biannually thereafter, prepare and submit to the appropriate Committees of Congress a report on the status and success of the programs funded under this Act.

"(b) GRANTS AUTHORIZED.—The Secretary may award grants under this title on a competitive basis to—

"(1) eligible partnerships to enable such partnerships to establish, expand or operate CP programs; and

"(2) States to enable such States to plan and develop statewide systems for establishing or operating CP programs.

"PART B—CP PROGRAM PARTNERSHIP GRANT

"SEC. 311. GRANT APPLICATIONS.

"(a) IN GENERAL.—

"(1) ELIGIBILITY.—To be eligible for a grant under this title, an eligible partnership shall prepare and submit an application to the Secretary at such time, in such form, and accompanied by such information as the Secretary may reasonably require.

"(2) JOINT SUBMISSION.—An application under paragraph (1) shall be jointly prepared and submitted to the Secretary by members of the eligible partnerships.

"(b) CONTENTS OF APPLICATION.—Each application submitted under paragraph (1) shall—

"(1) describe the lead fiscal agent of the partnership and the manner in which funds received by such partnership will be used to design and implement a CP program;

"(2) provide assurances that the eligible partnership will meet the matching requirement of section 813(c);

"(3) identify the funding sources to be used in meeting the matching requirement of section 813(c);

"(4) describe how funds received, or to be received, by the applicant from appropriate Federal programs will be used to operate the CP program;

"(5) provide assurances that the CP program to be established by the applicant will include—

"(A) an integration of school-based learning with worksite learning, including—

"(i) collaborative efforts between teachers and industry to assimilate academic curricula and classroom teaching methods with worksite technical and organizational requirements; and

"(ii) use of work-related equipment or materials whenever possible in classrooms;

"(B) training and orientation for teachers and employees that provide—

"(i) teacher training in and orientation to occupational, technical and employer skill requirements, including addressing any gender equity issues where appropriate; and

"(ii) employee training in and orientation to educational and mentoring requirements;

"(C) the use of high academic standards that maintain future academic and career options;

"(D) occupational and technical training that provides—

"(i) broad experience in and an understanding of all aspects of an industry, such as planning, management, finance, underlying principles of relevant technologies, community issues, and labor issues;

"(ii) experience with and knowledge of any technical and production skills, as well as health, safety, and environmental standards; and

"(iii) industry-wide, occupation-specific knowledge, skills and abilities;

"(E) instruction in employability skills, including—

"(i) the ability to manage resources, to work with others and to maintain good work habits; and

"(ii) the ability to acquire and use information, to understand and master systems, and to work with technologies;

"(F) work-based learning that includes—

"(i) a formal training agreement between the school, teacher, student, employer, parents or guardian, and participating employees or an employee representative, outlining respective roles and responsibilities of each individual or entity described in this clause;

"(ii) a formal work-site training plan;

"(iii) employee mentors; and

"(iv) paid work for students with wages to reflect such students' increasing skill levels throughout such students' participation in the program;

"(G) preenrollment counseling and support or linkages to programs that provide—

"(i) as early as possible, career guidance, exploration and counseling to help students define academic goals and develop career interests; and

"(ii) supplemental tutoring and academic assistance to help students achieve the educational prerequisites for participation in a CP program;

"(H) career guidance and program support services that provide—

"(i) career guidance and counseling to students in preparation for post-program employment and education; and

"(ii) supplemental educational, occupational, or work-based learning assistance to assist students who are experiencing difficulty in meeting CP program standards;

"(I) skill certification or postsecondary educational credit for students, including the receipt of a certification of occupational skills based on national or industry-wide occupational skill standards, where available, by students who have successfully completed the CP program (such certification is to be in addition to academic credits earned for the high school diploma);

"(J) active collaboration among employers, schools, students, parents, unions, or employee representatives and community-based organizations, where appropriate, in program design and implementation;

"(K) methods to assess academic mastery, employability knowledge and skills, occupational and technical instruction as well as matriculation into postsecondary work or educational programs;

"(L) assurances from employers that Federal and State laws relating to the safety, health, and well being of employees, including the right to a harassment-free workplace, apply to CP program students and that CP students do not displace current employees;

"(M) admission criteria that permit entry into the CP program and that are consistent with Federal civil rights laws governing federally funded education programs and governing employers;

"(N) training options and career counseling that address nontraditional employment for women and that facilitate the entry of minorities and women into high-skill, high-wage professions; and

"(O) systematic efforts to place graduates in full-time employment in the field for which such graduates have been certified, or to assist such graduates in pursuing postsecondary education or continued work preparation; and

"(6) provide assurances that students who complete the CP program will be academically and technically prepared to enter postsecondary educational institutions, reg-

istered apprenticeship programs, or other structured, employer-sponsored training programs.

"SEC. 812. GENERAL PROGRAM REQUIREMENT OF GRANT RECIPIENTS.

"(a) ANNUAL REPORT.—All grant recipients under this title shall submit to the Secretary an annual report that includes evaluations of the progress made by students in the CP program.

"(b) FORMAT OF ANNUAL REPORT.—The Secretary shall by regulation prescribe a uniform format that all grant recipients shall use in the submission of annual reports under paragraph (1).

"SEC. 813. FEDERAL CP SHARE.

"(a) IN GENERAL.—The Federal share under this title may not exceed—

"(1) 80 percent of the cost of the CP program for the first year for which the eligible partnership receives funds under this title; and

"(2) 50 percent of the cost of the CP program for the second and any succeeding year for which an eligible partnership receives funds under this title.

"(b) COST DEFINED.—For purposes of subsection (a), the term 'cost' means the additional cost per public high school student per year incurred by the local educational agency and members of the eligible partnership in excess of the cost per student per year of a public high school education. Such cost does not include the cost of student wages.

"(c) NON-CP SHARE.—

"(1) MATCHING REQUIREMENT.—The Secretary may not make a grant to an eligible partnership under this title unless such partnership agrees to make available non-CP contributions toward the costs of carrying out the CP program established with the amounts received under the grant. Such eligible partnership may use funds from other Federal programs to make up the non-CP contribution. The amount of such non-CP contributions shall be equal to at least—

"(A) in the case of the first grant year, 100 percent of the costs of such program during such year less the Federal CP share under subsection (a)(1); or

"(B) in the case of a second and any succeeding grant year, 100 percent of the costs of such program during such year less the Federal CP share under subsection (a)(2).

"(2) IN-KIND CONTRIBUTIONS PERMITTED.—The share of payments from sources other than funds made available under this title may be in cash or in-kind fairly evaluated, including equipment and services.

"PART C—STATE CP PROGRAM SYSTEM PLANNING GRANT

"SEC. 821. GRANT APPLICATIONS.

"(a) IN GENERAL.—To be eligible for a grant under this title, a State, in consultation with the State Human Resource Investment Council or if such Council does not exist, the State elementary, secondary, and

vocational education agencies, shall prepare and submit an application to the Secretary at such time, in such form, and accompanied by such information as the Secretary may reasonably require.

"(b) CONTENTS OF APPLICATION.—Each application submitted under subsection (a) shall describe the manner in which the funds received by a State under this title will be used to design and implement a statewide CP program that addresses, as appropriate—

"(1) the planning and development of a system for identifying employers, who provide employment in industries where high-wage, high-skill occupations are growing, to participate in CP programs;

"(2) the identification and development of an entity to help link schools with employers for the establishment and ongoing support of CP programs;

"(3) the provision or funding of a system of technical assistance for schools, teachers, employers, unions or employee representatives, community-based organizations, or parents, interested in establishing CP programs that encourage a diverse set of career options for all students;

"(4) the coordination with other States or national associations to develop unbiased and valid statewide skill certification processes for CP programs and participation in the development of national skills standards and skills certification for CP program graduates;

"(5) the provision of training and orientation for members of eligible partnerships in gender equity issues in education, career selection, and on presenting non-traditional career options to all students; and

"(6) the expansion of existing statewide CP programs.

"SEC. 832. GENERAL PROGRAM REQUIREMENTS FOR STATE CP PROGRAM SYSTEM PLANNING GRANT RECIPIENTS.

"(a) IN GENERAL.—The Secretary shall provide an annual survey to all grant recipients that shall be designed to evaluate the progress of statewide CP programs and skill standards and certification development.

"(b) SURVEY RESPONSE.—Grant recipients shall submit a response to the annual survey under paragraph (1) to the Secretary not later than 60 days after such survey is received.

"PART D—INDUSTRY CP PROGRAM GRANTS

"SEC. 831. GRANT APPLICATION.

"(a) IN GENERAL.—To be eligible for a grant under this title, an industry or trade association or a labor union shall prepare and submit to the Secretary an application at such time, in such form, and accompanied by such information as the Secretary may reasonably require.

"(b) CONTENTS OF APPLICATION.—Each application submitted under subsection (a) shall describe the manner in which funds received by an association or union under this

title will be used to design and implement an industry-wide or occupation-wide CP program that addresses, as appropriate, issues described in paragraphs (1) through (5) in section 821(b).".

SEC. 4. TECHNICAL AMENDMENTS.

The table of contents in section 1 of the Job Training Partnership Act is amended by adding at the end the following new items:

"TITLE VIII—CAREER PATHWAYS PROGRAMS

"PART A—GENERAL PROVISIONS

"Sec. 801. Definitions.
"Sec. 802. Authorization of appropriations.
"Sec. 803. Establishment of a grant program.

"PART B—CP PROGRAM PARTNERSHIP GRANT

"Sec. 811. Grant applications.
"Sec. 812. General program requirement of grant recipients.
"Sec. 813. Federal CP share.

"PART C—STATE CP PROGRAM SYSTEM PLANNING GRANT

"Sec. 821. Grant applications.
"Sec. 822. General program requirements for State CP program system planning grant recipients.

"PART D—INDUSTRY CP PROGRAM GRANTS

"Sec. 831. Grant applications.".

Mr. WOFFORD. Mr. President, it is my privilege to join my friend and colleague, Senator SIMON, in introducing the Career Pathways Act of 1993. This bill will help create a nationwide system of apprenticeships. It is my belief that the apprenticeships can be an important part of dramatically reforming education, helping young people who are not heading to college, and of making our workforce competitive in the global marketplace.

Mr. President, before I came to the Senate, I served as the head of the Department of Labor and Industry in Pennsylvania. In that role, I learned a good deal about apprenticeships as our department took the initiative in developing a statewide system of youth apprenticeships adapted from Germany's system. Our pilot programs in Pennsylvania, I believe, can serve as a model for the rest of the Nation.

As of January 1993, the Pennsylvania Youth Apprenticeship Program—still small—involved approximately 75 firms sponsoring 113 students in high-skill metal working, manufacturing, and health care.

Under the able direction, first of Bob Coy and now of Jean Wolfe, with the leadership of Secretary of Commerce Andy Greenberg, Secretary of Education Donald Carroll, and Thomas

Foley it is our Commonwealth's goal to start 12–18 new sites in 1993. Our efforts have received strong union and corporate support, as well as foundation support from the Alfred Sloan Foundation and the Howard Heinz Endowment.

The Pennsylvania Youth Apprenticeship Program currently consists of a rigorous 4-year curriculum that combines academic, technical and occupational education for students starting in the 11th grade. Students enter the program at the conclusion of their sophomore year and spend 2 days each week at the worksite and 3 in the classroom. They are sponsored by an employer, are considered company employees and receive a base weekly pay, are assigned a mentor and work at the worksite under the careful guidance of a skilled supervisor. The four walls of their classroom are expanded to include their community and the workplace, and students learn by doing. Our system is focused on outcomes and has challenging standards of proficiency and competency in both the classroom and the workplace. Most importantly, our model integrates secondary and postsecondary credentials.

I was very encouraged yesterday when Secretary Reich and Secretary Riley jointly appeared before our Labor and Human Resources Committee. The partnership and concerted efforts of labor and education will be necessary to ensure that we develop a workforce able to compete in this increasingly competitive global economy.

The Career Pathways Act of 1993 emphasizes much of the best elements of what we have learned and pioneered in Pennsylvania. It is an enabling bill that will provide a foundation for expanding apprenticeship efforts in all their diversity throughout the Nation.

Most importantly, this act emphasizes the type of partnerships—leveraging resources from schools, unions, corporations, foundations, State and local governments—that will be key to making these efforts work.

So I look forward to working with Senators KENNEDY and KASSEBAUM and Secretaries Riley and Reich to achieve legislation this year that will create a diverse and centralized and flexible system of apprenticeships, the kind of system President Clinton has called for.

> If we do this well, we can fundamentally reform American education, reshape the nature of school-to-work transition in this country, improve our ability to compete, and develop the lives and careers of those young people who have been called the forgotten half.

Opening Statement of Senator Wofford

Senator Wofford. Mr. Chairman, it is my privilege and pleasure to join my long-time friend and colleague Senator Simon in cosponsoring this Career Pathways Act of 1993 and to be here at this very important hearing.

I think I agree with all of the principles you just stated except what the name should be; there, I don't know. In Pennsylvania, we use the "Youth Apprenticeship" name, and it does get you in some trouble, but "apprenticeship" has a strong ring to it, and a rose by any other name will smell the same, so it's not the most important issue.

The most important issue is to create a diverse national system of apprenticeship-style programs for youth from the grassroots up. A system that will extend classroom walls into our Nation's businesses and into our communities. It is a reform based on a simple truth, that students learn best by doing—or at least that's a very, very important part of effective learning, and it has been something that has been vital in American education through most of our history and needs to be revitalized.

I think that apprenticeship-style programs in all their rich diversity, tailored to local and State needs, can be a powerful means of educating young people and, in the process, making our work force more competitive.

Before I came here, Mr. Chairman, I headed the Department of Labor and Industry in Pennsylvania and learned a good deal about apprenticeships as our Commonwealth pioneered a statewide system of youth apprenticeships. That pilot program is still small, but it is growing, and you'll hear a little about it today from Jean Wolfe, the State director of our Pennsylvania Youth Apprenticeship program. It now has 75 firms which are sponsoring 113 students in high-skill metalworking, manufacturing and health care. In York, for example, a first-year site where our panel participant Torry Tag is from, we have some 20 students engaged.

The Career Pathways Act of 1993 emphasizes much of what we thought was the very best of the elements that Pennsylvania has been demonstrating. It emphasizes the types of partnerships—leveraging resources from schools, unions, corporations, foundations, State and local governments—that are key to making these efforts work.

So I thank Senator Simon for his leadership on this front as on so many fronts and look forward to working with Secretaries Riley and Reich in passing legislation this year that will create this kind of system of apprenticeships. And if we do this correctly, it will be part of the reinventing of government that our country needs, and it will be a vital reform of American education, and it will improve

our ability to compete while developing those young people who make up the forgotten half. Let's not forget that half.

Thank you, Mr. Chairman.

[The prepared statement of Senator Wofford follows:]

PREPARED STATEMENT OF SENATOR WOFFORD

It is my privilege to join my good friend and colleague Senator Simon at this important hearing on school to work transitions and the Career Pathways Act of 1993.

This bill will help create a diverse, national system of apprenticeship-style programs from the grassroots up.

It offers the framework and the promise of fundamentally reforming our educational system by expanding classroom walls into our Nation's businesses and into our communities. Reform based on a simple truth: students learn best by doing. It is my firm belief that apprenticeship-style programs in all their rich diversity—based and tailored to local and State needs—are a powerful means educating at-risk young people and in the process making our work force competitive in the global marketplace.

Before I came to the Senate, I was honored to serve as the head of the Department of Labor and Industry in Pennsylvania. In that role, I learned a good deal about apprenticeships as our Commonwealth pioneered a state-wide system of youth apprenticeships—loosely adapted from Germany's system. This system—which is still small but growing—is a model for the rest of the Nation and offers the best working framework on which to build a rigorous and comprehensive national system.

As of January 1993, the Pennsylvania Youth Apprenticeship Program involved approximately 75 firms are sponsoring 113 students in high skill metal working, manufacturing and health care.

In York for example, a first-year site where our distinguished guest Torry Tag is from, we have some 20 students actively engaged.

I am most pleased that Jean Wolfe, the State Director of our Pennsylvania Youth Apprenticeship Program is also here. With her leadership our Commonwealth's goal is to start at least 12 new sites in 1993.

The Career Pathways Act of 1993 emphasizes much of the very best elements of what Pennsylvania has pioneered.

Most importantly the Act emphasizes the type of partnerships—leveraging resources from schools, unions, corporations, foundations, State and local governments—that are key to making these efforts work.

In closing, I thank Senator Simon again for his leadership and look forward to working with Senators Kennedy and Kassebaum and Secretaries Riley and Reich in passing legislation this year that will create a diverse, decentralized and flexible system of apprenticeships. If we do this correctly—reinventing government and working in partnerships—we can fundamentally reform American education, reshape the nature of school to work transition in this country, improve our ability to compete, and develop those at-risk young people who make up "the forgotten half."

Senator SIMON. I appreciate those remarks, and if I may just inject a personal note here, when Harris Wofford, who has not been

in the Senate very long, refers to "long-time" friends, people may wonder how that can be. I was a very young, green State legislator in Illinois, and Martin Luther King asked me to come down and speak for the first anniversary of the busboy countdown in Montgomery. And I got down to Montgomery, AL, and there was an eager young man there by the name of Harris Wofford, and our paths have crossed through the years.

Senator WOFFORD. We have had our own apprenticeships.

Senator SIMON. Yes, our own youth apprenticeship. It was a great apprenticeship there.

Our first panel consists of Hilary Pennington, president of Jobs for the Future, from Cambridge, MA, who spoke on national youth apprenticeship at the President's Economic Policy Conference last December; Gordon Ambach, who is a veteran witness here, executive director of the Council of Chief State School Officers; and appearing together, Jean Wolfe, State director of the Pennsylvania Youth Apprenticeship Program, and Torry Tag, a junior at Eastern High School in York County, PA.

We welcome all of you, and Ms. Pennington, we'll call on you first, unless there is some preference to the contrary.

STATEMENTS OF HILARY PENNINGTON, PRESIDENT, JOBS FOR THE FUTURE, CAMBRIDGE, MA; GORDON M. AMBACH, EXECUTIVE DIRECTOR, COUNCIL OF CHIEF STATE SCHOOL OFFICERS, WASHINGTON, DC; JEAN WOLFE, STATE DIRECTOR, PENNSYLVANIA YOUTH APPRENTICESHIP PROGRAM, AND TORRY TAG, JUNIOR, EASTERN HIGH SCHOOL, YORK COUNTY, PA

Ms. PENNINGTON. That's fine. Thank you.

Good afternoon. It is an honor to be here today to speak to you about the school-to-work transition and the Career Pathways Act of 1993. I commend both of you for your leadership and the vision that you have that reaches beyond that, because I think this is a tremendously important issue for our country's future.

My testimony today is based on Jobs for the Future's experience at the program, the State and the national level. As an organization, we have been working with 20 sites around the country, and then with a consortium of 20 States that are building youth apprenticeship and comprehensive school-to-work transition systems.

And I think as you are well aware and as the Act so eloquently describes, we have many programs that help young people today make the transition from school to work in this country. What we don't have is a system that would allow these kinds of opportunities to be available to all young people who want and who need them. And I think the critical challenge today is to build one, and your Act addresses this head-on.

I think you are absolutely on target in the principles that you have identified, in the essential elements that need to be part of an effective school-to-work transition system, and in recognizing the need for experimentation with different kinds of approaches as we move forward.

But our experience from the field would suggest that as you move from a framework for what these career pathways ought to look like to the sort of nitty-gritty of making them happen, several

other kinds of issues bear consideration, and I want to focus on four of them.

The first one is to come to your point about reinventing government and to think of this as an opportunity for a different kind of partnership between States and the Federal Government, really using the States as a driver for change.

I think you are absolutely right to recognize that we need simultaneously to develop programs at the local level and systems at the State and national level. And that has to be iterative. The two will inform each other. But I think how you link the two is a key.

And it seems that in the legislation as it is currently envision, you would envision perhaps grants going out to fund local programs at the local level and then a separate series of grants going to States. You might want to consider another option, which would be to link the two more closely and to use the same kinds of planning grants and then larger implementation grants that you have to States, but then encourage those States once they have the framework for a system in place to turn around and fund the local partnerships, where they would not qualify for getting larger money until they had a plan that had been accepted and they could demonstrate how they were going to do things that in essence show they can move from a program to a system.

Do they have a viable strategy for getting from a few hundred kids to a significant portion of their school-age population? Are they thinking about this as a way to link, to mainstream education reform strategies? Do they have a system for putting in place industry skill standards?

I think that in that way you can get the maximum kind of power simultaneously out of this iterative program building and State system building.

Second, I think it is absolutely right to build on existing and diverse models, but I would urge you to be very clear that not just anything goes. This is not a period of time in which you can erase the old word, whatever you used to be doing in your State, and put on top of it "career pathways" and claim that you are now achieving what needs to happen.

And as you expand apprenticeship-like kinds of opportunities for young people and add structured, integrated, work-based learning experiences into existing kinds of programs like tech prep and career academies, I would caution you to focus, if you had to focus on one most important thing, on making sure that there really is an employer-driven, structured work-based learning opportunity for young people, because that is the key motivator, I think, for young people and the key thing that is most often lacking in our existing school-to-work transition systems.

I can give you one example from Boston, where they have a youth apprenticeship or apprenticeship-like program for young people in the health professions. They have found that the single factor that is the biggest determinant of retention in that program is not the socioeconomic status of those children; it is not how well they do in school; it is the quality of the job placement that they are put in in the hospitals. Those kids who get put into jobs pushing blood and folding laundry don't stay; the ones who get put into challenging, structured, work-based learning kinds of jobs that are

more technical in nature stay and begin to flower in their self-esteem, in their academic performance.

Finally, two other points. To speed getting from program to system, I think there is a role, as you recognize, for Federal help in building standards, in curriculum; there is no need to reinvent that 50 times over in each of the States.

And finally, I would say that bringing these kinds of partnerships into being will require a new kind of partnership between the departments of education, labor and commerce not only at the Federal level, but also at the State level. By definition, these are bridging school and work; and if you are trying to perform education at the same time as to build these partnerships, I would recommend that you think about a very strong working partnership particularly between the departments of education and labor, not just in consultation with each other, but jointly administering these programs, jointly administering their funds, that I think needs to bring in the department of commerce, as happened in Pennsylvania. And you may want to think about what the best legislative and administrative vehicles might be for doing this. JTPA might be the best one; perhaps there are others.

And finally I would say that really, the roots of this new system are already taking hold around the country. As you will hear today, there are States, there are people, there are practitioners who are ready to be partners, ready to be held to the high standards of your Act, and I commend you for its very exciting leadership.

Thank you.

[The prepared statement of Ms. Pennington may be found in additional material.]

Senator SIMON. Thank you very much.

Mr. Ambach.

Mr. AMBACH. Mr. Chairman and Senator Wofford, may I begin by commending both of you for your leadership in the Career Pathways Act that you have presented, and may I also remind all as to what leadership you have provided, Senator Simon, over the years in guiding the Federal role for preparation of youth for employment. We applaud you for it, and particularly we applaud you for the new initiative which is being advanced at this point.

I am privileged to be a part of this panel. My colleague who has just spoken has made several of the points, which I will not repeat, but I might briefly reiterate some of them.

I think it is extremely important for us to be talking about this particular initiative in a context of very significant changes that are going on in our local school districts, in our States, indeed across the Nation.

This topic is an imperative for our youth, an imperative for our economy, and it is an imperative for the United States' position in the world. Our Nation's focus on the preparation of youth for adulthood and for their work has primarily been on the college-bound. Of course, there have been many, many programs directed toward vocational or technical or occupational preparation, for leaving school and going to work, but the fact of the matter is that when you look at the dollars that we have invested, primarily at the Federal level, and indeed in many cases at the State and local levels,

the emphasis has clearly been on those who have been pointed toward the academic, the college pattern.

We must change that. We much assure that each of our youth is provided with a full opportunity to prepare in an academic, a theoretical and a practical way, and to genuinely prepare with the work skills that are necessary for productive and successful employment. I think that's exactly what you are after with this particular legislation.

Our council has been very deeply concerned about preparation for employment for as long as it has been in business. Indeed, if you'd like a historical footnote, our council was in fact organized 75 years ago at the time that the Smith-Hughes Act was being considered by the United States Congress, and it was organized because the chiefs were invited to come to Washington to meet with the members of the Congress and the administration to talk about how you could have a Federal initiative in vocational education which would be administered through the States.

Ever since that time, we have had a continuing strong interest in how the Federal role should be crafted particularly together with the State role in providing for this preparation.

But we are definitely at a crossroads. This is not a clean slate with which you are working now. You have a whole series of Federal initiatives which are under way, of programs like JTPA and the Family Support Act, and the Vocational Technical Act and so on. The issue is how, then, is the next change made in order to both build all of those several local, ground-up projects in a systemic way. You cannot have continuing, flourishing, successful projects and ground-built activities unless they are supported by systems.

So it is imperative to think about how this legislation connects up both the development of specific projects, perhaps demonstrations design work, and also encourages and advances the development of systems.

You see, we will not in fact close this gap between the kind of services that we provide in our country for those who are college-bound as against those who are not unless we deal with it in a systemic way.

The principles that you advanced at the outset, Mr. Chairman, we agree with in general, and the principle of providing flexibility, but particularly the principle of linking together what is the academic restructuring of our schools and the preparation for work force skills is particularly important. That is what we focused on.

In the last 3 years, our council has been studying this issue. We have advanced for your consideration reports on the European experience in apprenticeship programs, their career pathways; surveyed the States and provided a policy statement about this, and we have presented a series of principles that might be followed by way of how you build this important legislation.

I will not reiterate all of those principles, but let me touch on two or three key things. I have just mentioned one. It is critical to restructure the educational system in this way toward work force skill preparation simultaneously and integrally with the restructuring in the academic sense. These have to be linked.

Second, it is critical in our new programs to join learning in the school or institution with learning at the worksite. Those, you have reiterated.

It is essential that there be a business-labor-education responsibility at the Federal level, at the State level, at the local level. And it is particularly important to build on—whether they are called apprenticeship or other programs—on a design in which we have a clear understanding for youth as to what they are expected to do; that if they make an effort, they will in fact be rewarded.

Apprenticeships do have the significant characteristics that they are in a time-honored sense an exchange of work for learning and support, and we have to keep that concept with us. It is work in exchange for learning and support.

Those three pieces together link business, labor and education. They link them in such a fashion that it is possible for any youth to see what this path is going to take that youth for.

If I might just suggest a couple of things by way of the redesign of your bill, they are these. I think it is extremely important that there is a strong role in putting out money for designing statewide systems, in putting out money industry by industry for the development of standards. And I think it is also important that as you fund local projects, you fund them in such a manner that they are connected with that State system design. I would strongly urge your reconsideration of whether you try to run local projects directly out of Washington to the localities as against whether you try to run them through State systems. I think that is absolutely critical by way of building, as you've described it, the ground-up projects but also the systems design.

We look forward to working with you on the development of this legislation and urgently hope, as Senator Wofford has said, there is an enactment this year.

Thank you.

[The prepared statement of Mr. Ambach may be found in additional material.]

Senator SIMON. Thank you very much.

I am going to call on my colleague to introduce the next witness.

Senator WOFFORD. I am delighted to introduce Jean Wolfe, who is giving new leadership to our program. Jean, I'll have to get your proper title——

Ms. WOLFE. State director.

Senator WOFFORD. Jean is director of the Youth Apprenticeship program of Pennsylvania which, at an early stage, she helped shape and has now taken over its leadership. We are proud of her and of that program.

Thank you, Mr. Chairman.

Senator SIMON. We are happy to hear from you and Torry at this point.

Ms. WOLFE. Thank you, Chairman Simon and Senator Wofford.

It is indeed an honor to be here to share with you the experiences that we have had over the last 3 years in developing a youth apprenticeship system in the State of Pennsylvania, and that system is being designed to build a new system for preparing today's students for tomorrow's high skill, high wage jobs.

The Pennsylvania Youth Apprenticeship Program actually stems from the recognition that economic development and educational reform goals must be connected for these options to be successful.

The need for this program was identified in 1989 by a study jointly sponsored by the National Tooling and Machining Association and the Commonwealth of Pennsylvania which identified the shortage of skilled workers as the primary obstacle to success and competitiveness of the State's metalworking industry. So that is how we got into this.

During the administration of Governor Casey, Senator Wofford headed the labor and industry department, and he initiated this program to test European school-to-work approaches as a means to improve the competitiveness of the State's work force.

We have financial support from the Federal Department of Labor, from the Commonwealth of Pennsylvania, and from two private foundations—the Alfred P. Sloan Foundation in New York City and the Howard Haynes Endowment in Pittsburgh. And most recently, we have also been awarded some money from the Chief State School Officers as well as continuing support from Hilary Pennington and Jobs for the Future, and I would like to thank them deeply for the direction that they have given us.

But designing and implementing a youth apprenticeship program has been a very, very challenging and rewarding position for us, and we are really happy to share our experiences.

We currently have six pilot projects operating across the State which are focused in metalworking. They are operating in the city schools of Philadelphia and Pittsburgh and in the counties of York, Lancaster, Western Montgomery and Lycoming. They are focused on metalworking, although we have started to expand into the health care industry as well.

As Senator Wofford mentioned, there are over 100 students right now and about 80 sponsoring employers. We have just finished a round of statewide conferences with the intention of starting an additional 12 to 18 new sites next year. There will be a variety of industries, as I understand, in those proposals, and we expect those proposals to be into the State office by the end of March, so we'll have an idea about how much excitement we generated during these conferences.

The students enter this four-year program after completion of the 10th grade. They go to school 3 days a week and to the worksite 2 days. This reduced schedule really forces restructuring, but it also has been found to be a very good schedule for business, education and students as well.

Students aren't visitors during this schedule. They are real workers, and they must clock in, and they understand what a full day's work is like. While at the worksite, students are provided a mentor; they are trained by a skilled worker, and they are provided a stipend or a wage for the hours at the worksite. They are trained to a structured training plan that has been agreed upon by the school, the industry, the stakeholders group, which I'll talk about in a little bit, and also the parents of the student.

In the classroom, students are taught by a team of teachers who use an integrated curriculum that is oriented to the specific needs of the industry. Teachers work closely with the mentors to monitor

the students' progress and to evaluate that progress. Teamwork and problem-solving skills are emphasized.

Although the program is still very new, we are seeing some significant improvements in students' attitudes toward work and toward school. There is improvement in attendance rates, and seeing the relevance of what they are doing in the classroom and applying it to what they are doing at work gives them a new quest for learning. It seems to excite the students. And labor and industry seems pleased that they are having a hand in training their future work force.

Other fun things are happening, like parents are invited to go to the worksite; guidance counselors have been taken to industry so they can appropriately counsel students about career pathways. And of course, mentors are working with teachers to refine curricula and to help with the educational process.

There is one thing about this system, and you can tell by all those parties involved that the real key to making this program a success is broad-based ownership at the local level. We have done that in Pennsylvania by forming stakeholders' groups. A stakeholders' group is comprised of area business, labor, educational and community leaders, teachers, who have a stake in making this program work. They have the key operational decisions at the local level. They define what the needs of the community are and the outcomes that these students will need to get to be successful in that industry. So that is a key component of the youth apprenticeship program, and we need to have any flexibility in legislation to continue that local leadership as well.

Second, like European models, the Pennsylvania youth apprenticeship program is economically driven, so enrollments are based on the industry's projected hiring rates, not on the number of students who want to enroll. This suggests some key logistical areas because school districts do not necessarily cluster around economic bases.

But students must have a sponsoring business to be into the program.

And third, the youth apprenticeship program in Pennsylvania is a performance-based system which is based on high standards and high expectations, which is a must if we are going to build a world-class workplace. In Pennsylvania, we have made students responsible for their learning, and they are meeting the challenge. But we must have national standards to benchmark our progress against.

We also must have world-class, high-performance work organizations to place students into, for without high-performance work organizations, there are no high-skill, high-wage jobs to train students for.

So without employers and without those high-performance work organizations, we do not have good-quality programs, so therefore we recommend that you tie together any of the educational form programs with revisions that would include helping employers not only with the incentives to train their future work force, but also to move into those types of work organizations that will create those high-skill, high-wage jobs.

Senator SIMON. If you could conclude your remarks, please.

Ms. WOLFE. Yes. The complexity of issues to build this system, then, is great, but the ramifications for not building it is even greater. We commend you for introducing this bill, and we look forward to working with you, our national leaders, to make it successful for all of our youth.

Thank you.

Senator SIMON. Thank you very much.

And Tory, you are a student; is that right?

Mr. TAG. Yes, I am, sir.

Senator SIMON. Are you skipping school today? [Laughter.]

Mr. TAG. No. I am supposed to be on the worksite today, actually.

Senator SIMON. OK, all right. You're losing a little money today, then.

Why don't you tell us your experience?

Mr. TAG. I enjoy the program very much. I am hoping to get out into the field and build a great career, and I believe it is going to develop into a great career. I am hoping to go to college, get my full degrees and apprenticeship papers.

I am currently employed at Donsco, in Wrightsville, PA, along the river.

Senator SIMON. What kind of work do you do?

Mr. TAG. I actually work on the machines to make different parts for whatever company they are building the parts for. I am in three different sections—the lathe cell; one section is called MDB, and the other one is CMM, which is computer mechanical measurement systems, which is where I was supposed to be today. That department measures all castings. We work with cast iron, mainly. It measures all the castings. They also calibrate tools down there, like plug gauges and thread gauges and all that.

The third department that is down in CMM is quality control. The guy that I work with there deals with all the problems that go on with the castings, and he goes out and talks to everybody there.

Senator SIMON. And what kind of a difference does the apprenticeship program make in your life?

Mr. TAG. I am currently doing a lot better in school since I have been in the apprenticeship program. The courses are a lot easier because they tie in with the metalworking program. Back at Eastern, I was in woodworking, and my friend actually got me involved in the metalworking because he went to Voc Tech last year. I really enjoyed it when I got there; I really enjoy it.

Senator SIMON. Great.

Ms. Wolfe, how many students are enrolled? Let's take a typical high school.

Ms. WOLFE. In our York program where Torry is a student, we have about 20 students.

Senator SIMON. Twenty students out of?

Ms. WOLFE. Out of about 1,000.

Senator SIMON. What is the maximum you could have in a program if you had the personnel to handle it?

Ms. WOLFE. Well, in each particular site, it is different, because it depends on the economic base in that area. But in the State of Pennsylvania, for instance, we believe that we could support 10,000

student apprentices in the next 5 years were we able to gear up for that.

Senator SIMON. And if the program you have—and I don't know where you are from in Pennsylvania, but let's say you are from the Philadelphia area—would a program like this work in the heart of the inner city?

Ms. WOLFE. We do have one program in the heart of inner city Philadelphia. It has some unique situations that are a little bit harder to deal with than the suburban schools that Torry is operating in. The students aren't necessarily ready to go to the job, so there is more preparation that needs to take place for the city students. Much of the industry has moved out of our city, so there are some special transportation issues that we are having to deal with in the cities. But it works. It is just finding the right combination, and they need more services in those city and urban areas.

Senator SIMON. Now, Torry says he wants to go on to college. What percent of those would you guess who are involved in the apprenticeship program will do that?

Ms. WOLFE. We would like 100 percent of them to go on to some kind of postsecondary education and training because businesses tell us that a high school diploma is not sufficient to handle the high-tech high school jobs that are being developed. So we are encouraging all of our students to go to some kind of postsecondary training and at least look for an associate's degree or a journeyman's papers, but go into some postsecondary career.

I think that's one of the things that we have to be careful how we define "noncollege bound" because youth apprenticeship is not a noncollege bound program, because there is postsecondary training involved in it. And we also have to look at the students that we send to a traditional four-year baccalaureate degree, and half of those drop out, too, so that confuses the term, I think, "noncollege bound."

Senator SIMON. Mr. Ambach, she touched on a problem that I think we have to be sensitive to. How do we avoid categorizing students in the way you mentioned in the Western European examples? In at least two of those countries, you make a choice very early in your school career, and you are going in one direction or another. You have reflected on this. How do we avoid that kind of a problem?

Mr. AMBACH. First, may I comment that to my surprise in the last visits that I have had in the European countries, it is not quite as rigid as many people from the outside think it is. There is a considerable amount of flow back and forth. You get a lot of people who went through apprenticeship programs who then go on to university—and vice versa, interestingly enough. So the flow there is changing. This is probably more true in a country like Denmark, or perhaps Sweden, than it would be in Germany. But nevertheless they have recognized exactly the issue that you are describing, that you cannot start too early and then get on one, single ladder and have to stay there.

But the point is extraordinarily important, I think, particularly in our American context where we have tried to provide for a range of options as long as possible so that the maturity of any youth

could get to the point where finally closing on that choice was made with good judgment and with good experience.

The fact of the matter is that all of us have to close at some point. We have to make those choices as to what we are going to specialize in, whether it is going to be a particular technical trade or whether it is going to be college.

And the way that I believe we have to do this is addressed in large part in your legislation. You are not opting for a single pathway. You are trying to construct an overall, comprehensive approach with several potential pathways. I think that's an important way to address the problem.

I think another way to address the problem is to make certain that we do not get trapped into thinking that one is involved in academic work up to a point, and then it branches between academic and practical or very much work skills-oriented, but that the preparation for work in the current work force in the future is as much academic as it is practical. If we keep that in mind, I think we open more of these options to be able to switch back and forth for a longer period.

Having said all of that, Mr. Chairman, we also have to look at the other side of it, and that is, I think, represented by Torry's comment, and that is the engagement that he has now in this particular occupational area where he is in fact working side-by-side in real productive work, I daresay he has just told us, makes an extraordinary difference in terms of his overall outlook on his academic work, on his skills preparation, and he has a sense of going somewhere with that preparation and being involved in an occupation and a career pathway which is absolutely critical. And that part of it, how to get somebody with that foot on the ladder, is equally important I think right now for an awful lot of our youth to the issue of how many different options there may be out there, when in fact so many don't even get ready to take any of those options. That's the other side of the coin.

Senator SIMON. Ms. Pennington, is your program reaching minorities relative to, say, the same percentage as it exists in the population of the student body?

Ms. PENNINGTON. Yes. We are working closely with 10 different sites around the country, and it really depends on the geographic region. In inner city Boston, in Oakland, CA, in Philadelphia, the population is the students who are there, and primarily it is young people of color who are in these programs, and I think what is remarkable to me is that with relatively little opening of opportunity, the enormous flowering of potential, of confidence, of achievement that they experience in these programs. They and their largely white supervisors at the hospitals where they work talk about the fact that they would have never had relationships with each other had it not been for a program like this, and they are gaining an opportunity for connections to the adult world and how you get jobs largely in our society, in addition to the chance to build skills.

Senator SIMON. Do you have a difficult time getting employers?

Ms. PENNINGTON. So far, at the level of scale that these programs are today, it has not been particularly difficult to get employers. And the employers who are involved are enthusiastic, deeply committed, and putting a lot in.

I think that there will be many employers who want to do this, who want a practical way in fact to work with schools and who are tired of the rhetoric and the little amount of change that they have seen. I think to get to hundreds of thousands of young people is going to be a challenge and will require building an infrastructure with employers that we don't yet have in this country.

But so far it has not proved to be that difficult to do.

Senator SIMON. Senator Wofford.

Senator WOFFORD. I wonder if any of you would like to take this chance to give us any information you have about how the programs that you have developed connect with the traditional apprenticeship programs. The next panel, our colleagues from the Brotherhood of Carpenters and the Construction Trades Department of the AFL–CIO, are going to strongly advance the traditional apprenticeship programs as a structure through which much of this could be done. In developing programs you are talking about, have you worked with unions and union apprenticeship programs, and what kind of interface is there now in your field?

Ms. WOLFE. In Pennsylvania, we have five unionized companies that are working with us, and they have reached an agreement that students will not become members until they get through the first 4 years of the program—of course, that varies by particular union. Each local has their own negotiating process. But we have found that employers are receptive to the idea of articulating students into an adult apprenticeship program. In fact, one employer in Lancaster has calculated that with the hours the student works during his 4 years in the program and some summer hours, he will have put in 5,200 hours toward a machinist program when he has completed the 4 years, and at that time he could articulate into an adult program. So we are looking at it right now on an individualized basis, and we are trying to keep those options open for students until they get closer to trying to make that decision, so that we can give them a broader cluster and a broader experience rather than the narrow focus needed right now, the way the adult program is set up.

Senator WOFFORD. Ms. Pennington.

Ms. PENNINGTON. It depends again on the industry. A lot of industries are not ones that have existing registered apprenticeship programs. I would say that there is an enormous amount of gain to be had by bringing to bear the experience of the registered apprenticeship tradition in this country and to date these programs have not benefited as much as they could or need to from that.

Jean's example—I think in parts of the country where there are unionized employers participating in programs like this, by and large, the job placements of the students are better, and their learning experiences are better. I think it is very important to work out the legitimate kinds of issues and concerns there are between these two movements, because ultimately what we want for our youth is very consistent, I think, with what registered apprenticeships hold out for the people who have access to them, and I think this could be a wonderful way to get in a younger and more diverse group of people, both into the traditional kinds of registered apprenticeships and to different kinds of fields. But it is a real issue

that needs more work and more attention, and there is mixed experience around the country.

Senator WOFFORD. Gordon, has there been much progress in involving registered, regular apprenticeship programs with school-to-work transition programs coming out of the schools? Have the schools been reaching out to those apprenticeship programs and vice versa?

Mr. AMBACH. Let me comment, Senator, particularly with respect to the special projects that we have been funding in the last couple of years where they have been focused using a label of "youth apprenticeship" programs.

You have heard the example and the experience in Pennsylvania. That's one of them. Another one has been in Maine. I would refer particularly to experiences in West Virginia and in Wisconsin. You will have a witness later on this afternoon from the department of labor in Wisconsin who can comment particularly on that one.

I think that very frankly, over the course of the past several years, there has been quite a split between the relationship and the development of qualifications for regular apprentices and those preparation programs that we have had in the schools. The average age of the apprentice in the trade unions, of course, is 29 years of age, if I am understanding what I hear from my colleagues in the unions. Now, that's a big gap between the students' age and those that we are dealing with who are at the secondary level.

We have had, I think, in this country a very, very large gap there in terms of how the apprenticeship system is used and the preparation for employment for those who are still in the secondary-level program, and are around the age of 17 or 18.

So I think, Senator, my direct answer to you has to be that these two issues haven't necessarily been joined that much in the past. There has been this gap.

Now, there is no doubt in my mind but that for us to be successful in improving our systems for youth preparation for employment, and particularly if we are going to use youth apprenticeships or if we are going to have patterns where there is genuinely an opportunity for youth to be at the worksite, to be paid some stipend, to be learning and so on, there must be a strong connection between the overall apprenticeship programs and the youth apprenticeship program. There must be worked out an understanding of how credits for various kinds of experience—the hours committed and so on—are linked together. I think that's one of the major challenges that we have. I think it has got to be done industry by industry. But you have your finger on a very, very critical issue here, which I believe can be worked out, and which will take a lot of give on both sides.

Senator WOFFORD. One other question, because I want to hear the next panel—I have read their testimony, and I'll have to step out for a few minutes. Another meshing question: the President launched his national service program at Rutgers Monday, and I wondered to what extent the school-to-work transition can be a service and school-to-work transition.

The Pennsylvania Conservation Corps slogan is "Serve, Earn and Learn." The Lancaster Voc Tech School in Pennsylvania discovered they could teach building at the Voc Tech School better by building

something in the community that the community wanted. They build a tourist center, and their young people's names are on the plaque in the building, and the master builders were very proud of their team of 12 young people who did it. I just wonder whether any of you have thought about to what extent this program can be in sync with the development of youth service to the community, whether learning through service can be an aspect of this.

Mr. AMBACH. Senator, the characteristics of both are almost exactly the same, and you have just very well outlined that—the direct activity, the hands-on activity, the service connection, together with learning.

I think the answer to your question is that yes, there is a tremendous potential to do it, but we'll have to be smart enough to be able to figure out how to put these pieces of legislation together to encourage it.

I think that can be in the hands of this subcommittee and in your full committee to guide that through the Congress. We would certainly strongly support it.

Ms. PENNINGTON. I would agree with that, and the practitioners in those two communities are starting to come together and talk about how we might try to do exactly that. And any kind of leadership and framework that you all could give would be enormously welcome.

Senator WOFFORD. Well, there are some qualities that you learn through the esprit de corps of being in a good corps that are crucial to a work force. The Economic Development Partnership in Pennsylvania had a task force major report done on the work force of the future. The president of Lehigh University, Peter Likens, headed it, and I was on it. It recommended—it argued—that the qualities that the business leaders on the Economic Development Partnership most wanted in an entry-level work force was initiative, responsibility, teamwork, and an ethic of work, and they recommended that half of the jobs of the Job Training Partnership Act should be in the form of youth corps where people learned the qualities of being a productive worker as well as being an active citizen.

I would be interested in any developments that bring these two programs together as we move forward.

Thank you, Mr. Chairman.

Senator SIMON. We thank all of you for your testimony. We appreciate it.

Our next panel is composed of Dennis Scott, United Brotherhood of Carpenters and Joiners of America; Ray Robertson, Building and Construction Trades Department of AFL–CIO, and Leo Reddy, President of the National Coalition for Advanced Manufacturing.

Mr. ROBERTSON. Mr. Chairman, we also have George Bliss here, from the UA.

Senator SIMON. We are very happy to have you join us, also.

Mr. BLISS. Thank you, Senator.

Senator SIMON. Unless you have any preference, I'll call on Mr. Scott first.

STATEMENTS OF DENNIS M. SCOTT, TECHNICAL DIRECTOR, UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA, WASHINGTON, DC; RAYMOND ROBERTSON, BUILDING AND CONSTRUCTION TRADES DEPARTMENT, AFL–CIO, WASHINGTON, DC; GEORGE BLISS, ASSISTANT DIRECTOR, TRAINING DEPARTMENT, UNITED ASSOCIATION OF JOURNEYMEN AND APPRENTICES; AND LEON REDDY, PRESIDENT, NATIONAL COALITION FOR ADVANCED MANUFACTURING, WASHINGTON, DC

Mr. SCOTT. Thank you, Senator.

First of all, Senator Simon and Senator Wofford, I appreciate the opportunity of addressing this panel this morning and particularly on the issues of school-to-work transition and the Career Pathways Program that is being presented here.

There are some issues that need to be addressed more so than the Career Pathways issue. I believe we are on the bring of establishing new education and training policy for our country, and indeed, I believe that most leaders understand the need for a concept of lifelong learning.

There seems to have been in the past, and I think still prevails, the understanding that most young people who are not college bound do not need to learn any more after high school. And I believe that is something that we have to address.

In the building and construction trade unions, and indeed in our organization, the International Brotherhood of Carpenters, I believe that we have addressed that with our apprenticeship programs.

I am the technical director of the United Brotherhood of Carpenters, a building trades union representing 550,000 members and 300 joint labor-management apprenticeship programs throughout the United States.

In recent years, public policymakers have focused on the failure of American schools in preparing noncollege bound youth with the skills and contacts needed for meaningful, productive lives and careers.

Today, our Nation is overwhelmed by social and economic problems arising from the 25 percent of our 46 million students who do not graduate from high school and from the millions of others who graduate inadequately prepared for the work force.

Many now believe that the basic flaw in the U.S. school system is its disconnection from the workplace. As a result, school-to-work transition policies have become a national priority.

Some educators and policymakers propose to solve the problem of school-to-work transition by creating new agencies—the Youth Apprenticeship Institute, for example. Or, they propose programs to tie high school youth directly to employers within the community. And others focus on workplace literacy programs.

The United Brotherhood of Carpenters believes that our Nation's long-established traditional apprenticeship programs, largely ignored in the rush to create new programs, offer the best opportunity to develop and test the school-to-work transition model.

The United Brotherhood of Carpenters already has established apprenticeship programs, overseen by joint labor-management committees, privately funded through collective bargaining.

The crucial elements of an effective school-to-work transition are already in place. What is needed is an interface between traditional apprenticeship and public education. This interface could be facilitated with funds from the Departments of Education and Labor to support school-to-work transition programs.

The United Brotherhood of Carpenters is interested in working with the Departments of Education and Labor to develop programs which first, introduce high school students to the career opportunities of carpentry beginning in the 9th and 10th grades in order to promote a better attitude among students about construction in general, and about pursuing a career in one of the carpentry trades in particular; second, develop and implement math and reading programs based on the various construction trades to measurably improve the academic performance of high school students; third, design and implement trade-related courses which address genuine trade skills and competencies and focus on preparing 11th and 12th grade students for full-time apprenticeship after graduation; fourth, indenture 12th grade high school students to joint labor-management committees, thus allowing students to buy into formal apprenticeship programs with the United Brotherhood of Carpenters; fifth, provide mentors to train 16 and 17 year-old students on construction sites so that they can participate in limited work experience during the summer months between 11th and 12th grades and for up to 2 days per week during the 12th grade school year; sixth, establish guidelines for minimum wages to be paid to carpentry school-to-work students while on actual job sites; and seventh, provide graduates of the carpentry school-to-work program direct entry into full-time carpentry apprenticeship programs with 1 year credit.

To accomplish these goals, the United Brotherhood of Carpenters Apprenticeship and Training Fund is seeking support from the Departments of Education and Labor to form an education and training consortium with leading educators and vocational instructors in several States. The consortium will develop, implement and evaluate a school-to-work transition linkage with the Carpenters National Apprenticeship Program and selected school districts during a five-year demonstration project.

The linkage would include preparation of basic skills standards for the carpentry crafts for integration into school-to-work programs throughout the United States.

The skills standards would be build around the core competencies and foundations of the carpentry crafts required for real jobs and basic skills required for high school graduation. The consortium would target school districts with high dropout rates in several States. The goal would be to keep students in high school through graduation, at which time they would transition into full-time apprenticeship training with credit for their school-to-work experience.

The curriculum developed by the consortium would provide required high school reading, writing, math and reasoning skills using carpentry-related content.

For example, students would explore geometry skills associated with the use and understanding of the Pythagorean Theorem through roof and stair construction; reading skills could involve

material safety data sheets or product assembly instruction. The students would also gain trade-related knowledge, skills, and safety instruction to prepare them for entry into the trade as full-time applicants.

Senator SIMON. If you could conclude your remarks, please.

Mr. SCOTT. In conclusion, world economics have changed the playing field for most American workers, and most workers don't know it yet. After all, education has done very little to teach young people what to look for and how to cope with the changing work environment. Most schools still follow the Tayloristic approach which advises everyone to go to college.

The so-called "career counseling" that most high schools provide does little for noncollege bound students. Education needs to work with industry and labor to develop alternative career paths which "turn on" high school students to trades or occupations which involve workplace training and, for some, a more appealing approach to education.

The United Brotherhood of Carpenters is enthusiastic about the Career Pathways Act of 1993 and wishes to go on record as supporting it.

Thank you.

[The prepared statement of Mr. Scott may be found in additional material.]

Senator SIMON. Thank you very much.

Mr. Robertson.

Mr. ROBERTSON. Thank you, Senator.

My name is Raymond Robertson. I am general vice president and executive director of apprenticeship and training for the International Association of Bridge, Structural and Ornamental Iron Workers. I am also the labor co-chairperson for the Federal Committee on Apprenticeship and chairperson of the Building and Construction Trades and Metal Trades Joint Apprenticeship and Training Committee of the AFL–CIO.

The AFL–CIO committee is made up of those persons who handle training matters for their respective international unions, and they represent the bulk of apprentices in training today.

At this time, I would like to formally take the opportunity to introduce George Bliss, secretary of the Building Trades-Metal Trades JAC, and a member of the Federal Committee on Apprenticeship.

One of the committee members who helped draft our comments is Ken Edwards, director of the technical services department of the IBEW, who is out-of-town today.

Over the past 2 years, we have had the opportunity to review several pieces of legislation concerning the transition of youth from school to employment. We feel that the Career Pathways Act of 1993 is by far the best that we have seen. It does not tend to lock a youth into a certain occupational endeavor as would be the case under the German apprenticeship model, nor does the bill suggest that the bulk of a student's last year in high school be spent out of the classroom and in an employment environment.

The proposed bill does assist States and local governments to carry out programs that are tailored to the growth needs of their areas. We are pleased to see that the bill does not set any pre-

scribed goals, an approach which often results in wasteful endeavors such as training people for occupations that are becoming obsolete or that have limited growth potential.

We must commend those who have drawn up this proposed piece of legislation. On the surface, the bill would create an equal partnership among education, labor and management.

We would have preferred to have seen a second title in this bill, or an entirely separate bill that would foster the expansion of apprenticeship as we know it in the construction industry. We still visualize the day when there might be 3 million apprentices gainfully employed nationwide instead of the 300,000 we have today.

While we have already presented most of our concerns directly to the staff of this committee, I would like to briefly mention three of our most serious concerns.

First, we want to be involved. Therefore, we would like to see the mention of the term "labor union" every time "employees" are mentioned in this bill. We would also like to call your attention to the fact that joint labor-management apprenticeship and training exist in every major city of the United States and their expertise should be called upon.

We believe that in order to make your bill workable, vocational guidance must be improved in our schools, community colleges, and our employment service. We firmly believe that some barriers for the employment of youth should not be removed. For example, we cannot support the exposure of any of our youth to hazardous occupations or occupations that would endanger their welfare.

Finally, while we strongly support the concept of your bill, we feel that it may constitute a two-edged sword. I do not think that I have to remind this committee that we still have more than 7 percent unemployment in this country; that our own construction industry has well over 20 percent unemployment; that many of those who are employed are currently working for lower wages and fewer benefits than they have enjoyed in the past, and that 27 million Americans, more than the entire population of Canada, cannot read and write functionally.

Therefore, we sincerely ask that those unemployed and underemployed Americans not be forgotten as we move forward toward the 21st century.

We thank you for the privilege of appearing here today, and at this time I would like to turn it over to George Bliss, if that would be proper.

Senator SIMON. We would be pleased to hear from you, Mr. Bliss.

Mr. BLISS. Thank you very much, Mr. Chairman, distinguished committee members. Good afternoon, and thank you for giving me this opportunity to appear before your subcommittee today.

My name is George Bliss. I am the assistant director of training for the United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry for the United States and Canada. I am currently a member of the Federal Committee on Apprenticeship and secretary of the AFL–CIO's Committee on Apprenticeship Training.

It seems that I have been associated with the field of apprenticeship training all my life. Marvin Boede, the president of our labor organization, is the current chairman of the AFL–CIO's standing

committee on education and has been appointed by President Lane Kirkland to serve as chairman of the AFL–CIO's ad hoc committee on training and to review new legislative initiatives in this policy area.

The United Association represents over 330,000 skilled workers in the plumbing and pipefitting industry and is proud to lead one of the finest systems of apprenticeship training in the United States.

Together with its signatory contractors and local unions, the United Association invests over 76 million private dollars per year in training in over 440 training and apprenticeship programs across the United States and Canada, and provides high skill training and solid employment opportunities to its membership.

The United Association has great interest in the area of skill training and has closely followed the national debate on this issue. We have actively participated in this debate by submitting extensive comments and testimony on previous legislative proposals in the area of worker education and training. As your committee well knows, worker education and training for both youth and adult worker populations must be a top priority for our national agenda if we are to restore America's competitiveness and maintain and increase our standard of living. Policy initiatives in this area warrant strong support and careful attention.

Initially, we would like to applaud two particular features of the Career Pathways Act that we believe warrant special recognition. First, we think that the efforts that you have made to prevent new youth training programs from creating a tracking system are highly commendable.

As the summary of the proposed bill notes, we should not promote the label of "forgotten half" for students who do not want to go to college. All workers, regardless of trade, industry or occupation, should be afforded equal dignity and opportunity. Rigid tracking systems should be avoided. While students who elect to pursue skills and training at early age should be encouraged to do so, those students should not have the future opportunities for higher education foreclosed.

Of all the numerous training bills that have been proposed in recent years, the Career Pathways Act is the first to make a conscious effort to address these issues.

The second unique and important feature of the bill is that it demands all new training programs meet certain quality standards. For example, the bill insists that training providers utilize formal training plans, execute agreements with participants, increase pay with rising skill levels, and involve employees and others in the design and administration of the program.

These very features describe many of the conditions which contribute to the success of the apprenticeship training programs in the building and construction industry.

We have suggested time and time again that such conditions would serve public training programs well, and we are glad to finally see a bill that incorporates the kind of quality-oriented standard that will help produce quality training programs.

It is critical that scarce training resources get better results and offer our youth a real chance at a high skill, high wage job, and the Career Pathways Act offers great promise in this regard.

We also applaud the requirement that requires all participants in new programs to meet certain academic standards to qualify and remain in the program. Such a condition is vital. Roughly two-thirds of all the new applicants do not have the basic academic skills to perform routine jobs. This statistic is particularly alarming when you consider that the workplace of today and tomorrow demands workers to master increasingly sophisticated and diverse skills. For these reasons, we must be extremely careful not to sacrifice basic academic skills for the sake of on-the-job training. Indeed, as we suggested in our comments on other training bills, basic education must continue to be a top priority.

Major reform in education, which requires higher achievement standards, is critical in these efforts and must be closely linked with new training policy. Given President Boede's chairmanships for the AFL–CIO education and training committees, the UA has been asked to comment on the leading legislative proposals for new education and training policy, including the High Skills, Competitive Workforce Act, the Youth Apprenticeship Act, Leading Employers into Apprenticeship Act, and others.

In response to these proposals, we have prepared extensive comments and testimony for the House Subcommittee on Employment and Opportunities, which held hearings on the School-to-Work Transition Program last summer. We are submitting a copy of this testimony and ask that you carefully review the comments and recommendations set forth therein.

While the Career Pathways Act is an impressive bill, we believe that these comments would help to make it an even better one.

One particular concern with the Career Pathways Act that should be especially noted is the failure of the Act to include a nonduplication clause. It is absolutely imperative that any new training policy contain such a clause to prevent government funds from being used to duplicate or undermine existing apprenticeship or other established training programs.

In the building and construction industry alone, contractors and labor organizations have invested millions of dollars into craft training programs that are renowned worldwide as models of excellence. It would be patently unfair to allow public funds to create government-subsidized programs that would duplicate existing programs. Such duplication would undercut substantial investments in successful private sector training programs, thereby defeating the very goals the new legislation seeks to attain.

In this regard, we would like to point out that the written comments we are submitting contain a draft nonduplication clause, we have prepared for previous training bills, and we strongly urge that this provision be incorporated in the Career Pathways Act.

In addition to the above, we have a number of other concerns. These comments and other recommendations aimed at helping the Federal Government build world class training programs are thoroughly discussed in the extensive written comments we are submitting. We ask that you give these views your careful consideration.

Thank you for your time and attention on this matter. On behalf of the United Association, I would like to commend the chairman and the subcommittee on the Career Pathways Act.

Thank you.

Senator SIMON. We thank you. And does the document you referred to make comments about our bill, specifically?

Mr. BLISS. No, it does not, Senator, but we will have those in the future. This is the comments that we have made on previous training bills.

Senator SIMON. Great. We appreciate it, and we will take a look at that.

Mr. Reddy.

Mr. REDDY. Mr. Chairman, thank you very much, Senator Wofford, for the opportunity to provide a few observations this afternoon from the perspective of my organization, the National Coalition for Advanced Manufacturing.

In your Career Pathways Act, Mr. Chairman, you refer to the need for industry, labor, and academic cooperation, and my appearance here today as the head of an industry-led association is to assure you that we are fully committed to that purpose.

Let me just explain briefly that our coalition is a large and rapidly growing organization, bringing together companies, trade associations, manufacturing technology organizations, including extension centers, around the country in a common commitment to seek public policies more supportive of raising the productivity and quality of our entire industrial base, small and medium sized manufacturers, as well as large manufacturers.

We were formed here in 1989, and for several years, we have been pursuing public policies such as an investment tax credit, accelerated depreciation to incentive increased investment in machinery in equipment; we have been arguing very hard for the creation of a nationwide industrial extension network to try to bring more advanced technologies into the hands of small and medium sized manufacturers. We have been arguing for some time for a dramatic reprioritization of the $76 billion Federal R and D budget to provide more funding for manufacturing process technologies. And fourth, we have been saying for a number of years that Federal education policy is not focusing sufficiently on the preparation of the kind of highly-skilled work force that we need, particularly in an advanced manufacturing environment.

I want to say for the record that my organization is very pleased that President Clinton in his manufacturing strategy speech last September and as part of his new economic and technology policy plan has integrated the elements that I just mentioned. We are also very pleased that the President is committed not only to give much greater focus to the students in that critical passage between school to work, but is also willing to put some resources on the table.

So our purpose today is not to quarrel about matters of first principle, but to see if we as a practical matter can help to advance this entire agenda, including the education agenda.

Now, Mr. Chairman, I am happy to report that our coalition does include a number of national organizations dealing specifically with this issue—the American Vocational Association, the American As-

sociation of Community Colleges, the Vocational Industrial Clubs of America, the National Association of State Directors of Vocational Technical Education; also, the Association of Teachers of Trade and Industrial Education. We have been working with that community for the last eight or 9 months quite intensively, to try to formulate a basic position between industry and that community to see if we can find some common ground, and for that purpose we are just about to release a position paper, the preliminary recommendations of which I have included in my statement. Today, very briefly, I will just highlight two or three points.

First, we all believe, I think, that the most cost-effective and efficient way to try to raise the skills of our work force as a whole is to leverage the existing school system and to leverage the excellent models that are out there, including the models offered by our colleagues from the unions, rather than continually trying to create alternative systems and alternative paths.

We should build on what is there.

To give you one concrete example, I think a notion that we have been recently discussing in our group which you might consider also for your bill, Mr. Chairman, is the creation of essentially a national apprentice system or a school-to-work or career pathways system—I prefer your nomenclature because it is more all-inclusive—it would include also coop education and other activities in addition to class apprentice programs. One thing you might include in a career pathways concept is to leverage the fact that about half of students in high school right now are working; more than half in two-year secondary colleges are working, and those jobs are already being paid for by employers. You might look at ways to educationally organize some of that work, to structure it, so that it could meet some accreditation requirements within the school curriculum. So in other words, you could immediately leverage this enormous resources that is already there. You could use some of the $500 million the administration is talking about to help organize that kind of activity, but you would immediately have, if you organize it educationally, a system worth hundreds of millions, even tens of billions of dollars, in terms of the resources available.

Finally, I would like to make the general observation, Mr. Chairman, that if the Federal Government wishes to be an active player in the area of training the work force as a whole, then you really have to take a very, very serious look at where Federal dollars are being spent at the present time.

If you look at the charts I attached to my statement, I think you will see quite clearly depicted that there is—and I have some charts here as well; I wish I could show them in some way, but I can't—but out of a $75 billion Federal education budget, less than 10 percent of that is going to occupational vocational training. Of that amount, about $4.5 billion is going into programs for discrete population groups such as JTPA, Job Corps, and jobs, leaving essentially the Perkins Act for vocational education.

But even if you look at the Perkins Act, about 80 percent of that act is already earmarked for special needs groups. Therefore, the amount of actual funding that the Federal Government itself is putting into a high skills, competitive work force, if you are talking

about the general population is far less than one percent of that total $75 billion budget.

We argue in our paper not at all to diminish the programs for what we call the "second chance" programs for people who are disadvantaged in one way or another. To the contrary, we agree with your observation that JTPA, for example, may be underfunded. And we are certainly not against youth opportunity centers. But we would argue that the funding for the school system and for well-established mainstream programs should be raised at least to that level. That would mean adding to the current $1.2 billion available right now for the Perkins bill, about $2.8 billion more for a series of programs, and we outline those programs in our position paper specifically, the areas in which we'd like to see that money invested, but basically, to bring into balance the amount of Federal funding for the general population into balance with the funding for special populations.

We think those measures would show that the Federal Government really is committed to a serious role in this area. And we think that, combined with leveraging from the existing infrastructure would make an enormous difference quite quickly in our Nation's ability to produce a high skills work force.

Thank you.

[The prepared statement of Mr. Reddy may be found in additional material.]

Senator SIMON. Thank you.

Senator WOFFORD. Mr. Chairman, I am sorry to leave you and this really very helpful panel and to miss the next panel. I will read their testimony with care. I have to go to another front for action this year, health care reform, but I look forward to pursuing with some of our colleagues here some of the very interesting points they have made.

Thank you.

Senator SIMON. Thank you for joining us and for cosponsoring this.

Mr. Reddy, you talked about a nationwide extension network in your opening remarks. What do you mean by that?

Mr. REDDY. I'm sorry, Mr. Chairman—I talked about the national network of industrial extension centers.

Senator SIMON. Yes.

Mr. REDDY. Yes. Well, it is a little bit off the subject of technical education, but it is relevant, I believe. We have long advocated developing the concepts that have already been worked out at the National Institutes of Standards and Technology through the Hollings Centers, in some of the States through some of their extension center activities, a much more robust national network of organizations that can deliver more advanced technologies directly into factors through a nationwide extension program.

We are very happy that the President has endorsed the concept of 170 market-driven extension centers, to use his phraseology. We are pleased that the defense appropriations bill now includes an increase from $17 million to $200 million the amount of Federal funding available for such activities. This will infuse funds into the network of community colleges, technical colleges, and State engineering schools all around the country to improve their ability to

deliver this kind of technology, advanced manufacturing technology, into the hands of our manufacturing base including the smaller companies.

I wanted to make the point today, and you have given me an opening to do so, Mr. Chairman, that in our organization, since our membership includes the largest number of such industrial extension centers, we would like to look at ways to tie their work in factories more closely to the work of the different education training centers, or technical education centers around the country, so we can also make sure that employers are aware of these facilities and also help employers to articulate their technical education needs more clearly. It is hard for them to do that right now in an organized way and a way that can be helpful to secondary and postsecondary schools.

Senator SIMON. Any suggestions you have in that field, we would welcome.

Mr. REDDY. Thank you.

Senator SIMON. If I may address this question to all three of you, Mr. Robertson, you said, "We still visualize the day when there might be 3 million apprentices, gainfully employed nationwide, instead of the 300,000 we have today." You also mentioned the unemployment that you have in the construction trades.

Are we going to run into problems with people saying we are training too many carpenters—to use Dennis Scott's example—that in fact, the law of supply and demand is out there, and we are harming the average wage for people who want to become carpenters?

Mr. ROBERTSON. One of the things we are talking about here, too, is the fact that we are supporting the expansion of the apprenticeship system as we know it, using the building trades as a model, to other industries, other occupations. Right now, you do not have apprenticeship in many occupations outside the building and construction trades. We feel that because it has been so successful, primarily because we operate management and labor working together and jointly that in the future, you could have as many as 3 million apprentices in those occupations that are looking for workers, and they have to further train them after their schooling is over with.

So when we talk about 3 million, we aren't talking about 3 million in the building and construction trades. We are talking about——

Senator SIMON. You are talking about bank tellers, accountants, and everything else.

Mr. ROBERTSON. Right. And one of the vehicles to do that, to coordinate, is the Federal Committee on Apprenticeship.

Senator SIMON. Mr. Scott.

Mr. SCOTT. Yes, Senator, I believe there could be some ways that we could create additional slots in the traditional apprenticeship programs, and we in the carpenters union would certainly be interested in pursuing that so that we could recruit more young people, and specifically the minority and women populations.

One of those ways might be to tie together the apprenticeship programs to infrastructure projects or to low-income housing projects, to projects where there is lead involved in housing in some

of the inner city areas where that has to be encapsulated, and certain portions of the buildings have to be removed and replaced. There is a lot of work to be done in the inner cities and in the infrastructures.

If we could tie those projects to the need to develop further apprenticeship programs, we could create the slots and thus put more young people to work.

Senator SIMON. Thank you.

Mr. Bliss.

Mr. BLISS. Senator, I think you aren't all wrong when you indicate that the jobs that are available do drive our system; there is no doubt about it. And we would certainly hope that in the future there will be more spots in the building and construction industry to do that.

One of the major things that we like as well about your bill is the fact that you have employees, labor, working with management to try to determine the number of slots and the kind of training that should be provided for those young people. Just to provide the training without linking it to a job, to actual reward for the training, we think has caused some of the Federal programs in the past to fail.

We have had the opportunity to work with Ms. Pennington in the past, trying to work some things together and work closely with the groups outside of the building trades apprenticeship programs to show what we think is important, and they are helping us. So to that extent, the jobs will actually determine how many apprentices can be employed.

Senator SIMON. Let me ask this question of all four of you. If instead of Paul Simon in front of you right now, you had Secretary Bob Reich and Secretary Dick Riley, and you could give each of them one piece of advice in terms of where we go on this program—Mr. Reddy?

Mr. REDDY. Well, Mr. Chairman, I'd have to really say two things rather than one.

Senator SIMON. We'll give you permission to say two.

Mr. REDDY. I would again repeat the thought I mentioned earlier, that if you are really talking about organizing a national career pathways approach, you should consider leveraging off the jobs that students already occupy and for which business is already paying rather than trying to create major new systems.

The second point I would say is that apprenticeship alone is really just a small part of what the Federal Government can do in the area of trying to develop a high skills work force. As you'll see from our position paper, we have a whole series of measures we would propose, and particularly we would tie those to significantly increase Federal spending out of the President's long-term investment proposal on that whole strategy, not just on apprenticeship.

Senator SIMON. Thank you.

Mr. Robertson.

Mr. ROBERTSON. I would just say that what is important is that education and labor work together along with business and labor, and by doing that, coming together and working under a bill such as this; I think that's what would make it successful.

Senator SIMON. Mr. Scott.

Mr. SCOTT. I also think there would be two issues that would have to be addressed. No. 1, look at the existing apprenticeship system, the traditional apprenticeship programs in this country. They have been very successful. The reason they have been successful is because there is a true commitment, a commitment by labor and by management, who are tied together with the BAT, the government entity; and we work closely with education also.

We also put a lot of money into the system, and thusly labor and management need to feel that they want to get something out of it. So that we really work hard at making it work.

Second, it doesn't do any good to try to expand apprenticeship and to create all these slots if young people don't want to go into the system. We have to somehow change the attitudes of young people. That means reeducating our educators and our counselors and, of course, trying to get to our young people to change their attitudes about the workplace and the fact that there are other careers outside of going on to college that need to be pursued and that are very interesting and very productive and very fulfilling. So I think those are the two areas.

Senator SIMON. And do you find a problem today with young people? In other words, they are not turned on by the idea of becoming a carpenter.

Mr. SCOTT. Absolutely. As a matter of fact, I think a comment was made earlier by one of the panelists that the average age of the traditional apprenticeship program is 29. I think in our organization it is probably about 25. And there is a reason for that. Many young people who come to us are not able to read very well and are very poor in their math skills, and we are not about to lower our standards when everybody is telling us that we have to be more skilled in order to be competitive.

So it is very difficult to recruit young people at an early age. They bump around from job to job, and they eventually get their attitudes changed around, and they come to us, and they make it. So I think we need to do something early on to try to change young people's attitudes. I think that is probably best accomplished with this kind of a program, quite frankly.

Senator SIMON. Mr. Bliss.

Mr. BLISS. Senator, I would first indicate to the secretaries that if a program is predominantly classroom, it should probably come under Secretary Riley's overall responsibilities, and if it is predominantly work-related, it should be in the Department of Labor. And I would suggest to them both that in the near future, if they would talk with labor commissioners, directors of apprenticeship for the various States, and apprentice directors for the various national programs that are in place before instituting programs that we think we could help to make those programs a success. We want it to be successful. We want the young people of America to be able to work in high-paid, high-skill jobs.

Senator SIMON. We thank all of you very, very much for your testimony.

Senator Thurmond has been tied up in a meeting with the Ambassador to NATO and asks that his statement be entered in the record, and we are pleased to enter that in the record.

[The prepared statement of Senator Thurmond follows:]

PREPARED STATEMENT OF SENATOR THURMOND

Mr. Chairman: It is a pleasure to be here this afternoon to receive testimony concerning S. 456, the Career Pathways Act of 1993. I would like to join my colleagues in welcoming our witnesses here today.

Mr. Chairman, it was a pleasure to work with you last year on the amendments to the Job Training Partnership Act—a bipartisan consensus bill. As we consider legislation concerning youth training programs, I look forward to again working closely with you and the subcommittee.

S. 456, the Career Pathways Act of 1993, would establish a grant system to be administered by the Secretary of Labor in consultation with the Secretary of Education to help develop statewide school-to-work transition systems. It is an effort to help those students who choose not to enter college immediately after high school.

As you know, Ms. Diana Walter and Mr. Eddie McDowell from my home State of South Carolina were here to testify on this subject last December. They are affiliated with the Partnership for Academic and Career Education (PACE) at Tri-County Technical College in upstate South Carolina. This nationally-recognized partnership, consisting of school districts, businesses, and higher education institutions, received the U.S. Department of Education's Excellence in Partnership Award. I am delighted their testimony has been used in creating this legislation.

I agree with the chairman's statement upon the introduction of S. 456, that ". . . . we should examine this issue carefully before providing any significant financial incentives for employer participation." However, I am concerned the S. 456 authorizes $750 million for this program before we require a study to determine the need for a national Career Pathways program.

I would also note that the Elememtary and Secondary Education Act of 1965 is currently due for reauthorization. I believe we should consider addressing all options for youth training programs during this reauthorization as part of a comprehensive package.

Again, I would like to welcome our witnesses. I believe their testimony will be valuable to the subcommittee as we examine youth training programs.

Senator SIMON. Our final panel includes Mr. Harvey Link, head of the American Vocational Association; Carol Skornicka, secretary of the Wisconsin Department of Industry, Labor and Human Resources; Robert Ivry, of the Manpower Development Resource Corporation of New York, and Mary Gonzales Koenig, who has been a witness here before.

Mr. Link, we'll start off with you.

STATEMENTS OF HARVEY LINK, PRESIDENT, AMERICAN VOCATIONAL ASSOCIATION, ALEXANDRIA, VA; CAROL SKORNICKA, SECRETARY, WISCONSIN DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RESOURCES; ROBERT J. IVRY, SENIOR VICE PRESIDENT, MANPOWER DEVELOPMENT RESOURCE CORP., NEW YORK, NY, AND MARY GONZALES KOENIG, CITY OF CHICAGO, MAYOR'S OFFICE OF EMPLOYMENT AND TRAINING

Mr. LINK. Thank you. Good afternoon.

My name is Harvey Link, and I am president of the American Vocational Association and dean of the Arts, Science and Business Division of the North Dakota State College of Science. On behalf of vocational educators across the country, I commend you, Chairman Simon, for taking a lead role in the debate over school-to-work transition by introducing your Career Pathways Act of 1993.

I am very pleased that you are seeking advice and input from the vocational-technical education community on this subject of vital importance to our Nation—the education and training of our future work force.

We are also very pleased to be working with NACFAM in this area, as Mr. Reddy previously indicated.

The mission of the American Vocational Association is to provide educational leadership in developing a competitive work force. Our members are in the classroom every day, working toward that goal. They are the ones leading education reform through school-to-work transition programs such as tech prep, cooperative education, mentoring, school-based enterprises, education/business partnerships, and yes, even youth apprenticeship.

Vocational-technical education, at both the secondary and postsecondary level is helping students obtain the skills they need to compete in the global economy. Two essential elements in this effort are the integration of academic and vocational instruction and the close involvement of business and industry in developing curricula, designing courses, and setting industry-validated skill standards.

With our experience in education for employment, vocational-technical educators stand ready to help the administration and Congress build a youth apprenticeship for other school-to-work transition systems.

Your Career Pathways legislation, Mr. Chairman, would be a natural adjunct to the new cooperative efforts occurring between academic and vocational instruction and employers. The grants made available through Career Pathways would help to build upon the successful model programs of vocational-technical education.

We fully support the formal training agreement provision of the bill. In fact, I have personal experience with such agreements. When I was a classroom instructor, I was responsible for coordinating worksite training for students. Formal agreements were an essential part of that program. Such agreements are imperative to accomplishing the goals set for the student, the school and the employer. I have brought with me some examples of the agreements we use at my institution, and I'll be happy to leave them with you for your perusal.

Senator SIMON. Thank you.

Mr. LINK. AVA supports the strong career guidance and counseling, as well as the teacher training components of the bill. The successful transition from school to work begins in the early grades with well-informed and trained career counselors. Students need their guidance to understand career options and to make course choices that will prepare them for high-skilled careers. Teacher training and skills updating are also a critical component of your legislation, and to the success of any program.

We do believe that the bill can be strengthened by requiring career pathway partnerships to coordinate with programs operated under the Carl D. Perkins Vocational and Applied Technology Education Act. This will avoid duplication of effort and ensure that existing innovative programs are built upon and replicated.

Coordination not only between various Federal laws but between the Departments of Labor and Education is essential. While the bill provides for Labor to work in consultation with the Secretary of Education, we would prefer to have the program run as a joint effort between the two departments. This would enhance coordination and ensure that requirements of educational programs are being met by Career Pathways grant recipients. Assurances should also be provided that special population students have equal access to Career Pathways.

Finally, while your subcommittee does not have jurisdiction over the Perkins Act, we believe that the Career Pathways legislation would be strengthened by instituting a similar program and appropriation through the Perkins Act. This would complete the coordination effort and give educators a direct stake in the success of the program.

In closing, we welcome the opportunity to work closely with you in perfecting the legislation and will submit further recommendations and written testimony in the next week or so. I believe you will find our recommendations to be helpful not only in improving Career Pathways, but in building support for its passage.

I thank you for inviting the American Vocational Association to testify. We stand ready to assist you in improving opportunities for the majority of students to make the connection between school and work.

Thank you.

[The prepared statement of Mr. Link follows:]

PREPARED STATEMENT OF HARVEY LINK

Good afternoon, my name is Harvey Link, I am president of the American Vocational Association and dean of the Arts, Science and Business Division of the North Dakota State College of Science. On behalf of vocational educators across the country, I commend you, Chairman Simon, for taking a lead role in the debate over school-to-work transition by introducing your "Career Pathways Act of 1993."

I am very pleased that you are seeking advice and input from the vocational-technical education community on this subject of vital importance to our Nation: the education and training of our future work force.

The Mission of the American Vocational Association is "to provide educational leadership in developing a competitive work force." Our members are in the classroom every day working toward this goal.

They are the ones leading education reform through school-to-work transition programs such as Tech Prep, cooperative education, mentoring, school-based enterprises, education/business partnerships, and, yes, even youth apprenticeship.

Vocational-technical education, at both the secondary and postsecondary level, is helping students obtain the skills they need to compete in the global economy. Two

essential elements in this effort are the integration of academic and vocational instruction, and the close involvement of business and industry in developing curricula, designing courses, and setting industry-validated skill standards.

With our experience in education for employment, vocational-technical educators stand ready to help the administration and Congress build a youth apprenticeship or other school-to-work transition system.

Your Career Pathways legislation, Mr. Chairman, would be a natural adjunct to the new cooperative efforts occurring between academic and vocational instruction, and employers. The grants made available through Career Pathways would help to build upon the successful model programs of vocational-technical education.

We fully support the formal training agreement provision of the bill. In fact, I have personal experience with such agreements. When I was a classroom instructor, I was responsible for coordinating work-site training for students. Formal agreements were an essential part of that program. Such agreements are imperative to accomplishing the goals set for the student, the school, and the employer. I have brought with me some examples of the agreements we use at my institution.

AVA supports the strong career guidance and counseling, as well as the teacher training components of the bill. The successful transition from school to work begins in the early grades with well-informed and trained career counselors. Students need their guidance to understand career options, and to make course choices that will prepare them for high-skilled careers. Teacher training and skills updating is also a critical component of your legislation and to the success of any program.

We do believe that the bill can be strengthened by requiring Career Pathways Partnerships to coordinate with programs operated under the Carl D. Perkins Vocational and Applied Technology Education Act. This will avoid duplication of effort and ensure that existing innovative programs are built upon and replicated.

Coordination, not only between the various Federal laws, but between the Departments of Labor and Education, is essential. While the bill provides for Labor to work "in consultation with" the Secretary of Education, we would prefer to have the program run as a joint effort between the two Departments. This would enhance coordination and ensure that requirements of educational programs are being met by Career Pathway grant recipients.

Assurances should also be provided that special population students have equal access to Career Pathways.

Finally, while your subcommittee does not have jurisdiction over the Perkins Act, we believe that the Career Pathways legislation would be strengthened by instituting a similar program, and appropriation, through the Perkins Act. This would complete the coordination effort and give educators a direct stake in the success of the program.

We would be happy to work with you to move companion legislation through the respective Senate subcommittee and the House.

We welcome the opportunity to work closely with you in perfecting this legislation—and will submit further recommendations in written testimony in the next week or so. I believe you will find our recommendations to be helpful, not only in improving Career Pathways, but in building support for its passage.

Thank you for inviting the American Vocational Association to testify. We stand ready to assist you in improving opportunities for the majority of students to make the connection between school and work.

Senator SIMON. Thank you very much, and we welcome your suggestions. Obviously, this is not written in stone. We want to improve it, and I am sure it can be improved.

Ms. Skornicka.

Ms. SKORNICKA. Thank you very much, Mr. Chairman, for the opportunity to represent Governor Tommy Thompson and the State of Wisconsin this afternoon at this hearing.

I am pleased to be able to visit with you to talk about our experience with youth apprenticeship in Wisconsin. We are also very pleased that President Clinton and this committee have made clear your desire to increase the Federal commitment to improving the school-to-work transition for America's high school students.

We began the youth apprenticeship program in Wisconsin approximately 2 years ago by State legislation, and this was in re-

sponse to the needs of our economy, our businesses and, most importantly, our young people.

We have been fortunate in Wisconsin to have an unemployment rate of only 4.5 percent, which is of course well below the national average, for over 5 years. Our economy is growing, and so are demands for the development of new skills and a new kind of workplace.

As is true all across the country, business needs a highly-trained work force to stay competitive in a global economy. Four years ago, Governor Thompson's Commission for a Quality Work Force surveyed over 1,800 Wisconsin employers. We found that 60 percent of Wisconsin employers anticipated rising skill demands for nonmanagerial employees over the next 5 years and that over 40 percent of the new jobs in our State would be high skill, high wage positions by the end of the century.

Over half of our employers said that a lack of skills in their current work force actually hurt their competitiveness. And I would dare to say that those figures would be replicated in a national study. At the same time, the young people in our State have been looking for new options and new opportunities. They want to be ready for the jobs of the future, and they want school to be interesting and relevant to their lives. Many of them need to find a new way into the world of work, but as we all know, they stumble on their way.

Too few students finish college. Actually, less than 30 percent of the young people that graduate from high school ever obtain a college degree, and too few enroll in a technical college. Those who begin in a traditional registered apprenticeship program often wait until their mid-20's to enroll if they can even get into one.

Our young people can't afford a decade of drift before they find productive work.

Last fall, Wisconsin started a youth apprenticeship program for a number of reasons. We wanted to give students more opportunities to learn about the world of work. We wanted to show them a pathway to a job and to increase the number of skilled workers available to our employers.

Our program was started to provide skill training in the printing industry, and this fall we plan to expand opportunities in the printing industry and begin another youth apprenticeship program in finance. And in 1994, we expect to expand into several new occupational areas.

This is a joint effort in Wisconsin which includes many partners, and the partnership aspect of youth apprenticeship is what I think makes it particularly relevant in the discussions in your legislation and also critical to the success of programs such as youth apprenticeship.

And let me as an aside mention that I am not unmindful of the very important discussion surrounding the use of the term "youth apprenticeship," and I am using it because that is indeed the term that is in Wisconsin's legislation, and I encourage this committee to work closely with our friends in organized labor to try to resolve the important issues that surround the terminology that is growing out of this program.

In Wisconsin, the essential partners include public education, the technical colleges and the university systems, organized labor, business organizations, local communities, including local chambers of commerce, as well as State agencies.

The State labor department, my department, works very closely with the State department of public instruction, the State technical college system, and the department of development to try to find additional ways in which we can work together to make for a successful program for our young people and for the growing demands of business.

Everyone is giving so that we all can gain a lot.

I'd like to tell you about one of our students, Mark Nordby, who is a junior at West Bend High School in West Bend, WI. He is a printing youth apprentice. Before he started the program, he said: "I didn't like school. I figured I'd rather be out working and making money. I didn't really have nowhere to go before, and now I have something firm." That's the end of his quote.

Mark thinks that if the program hadn't come along, he probably would have dropped out of high school, but now, he of course plans to graduate and go on to technical college and work as a printing press operator. And as an aside, let me say that his grade point average has increased as has the grade point average of a number of students in this program.

Our youth apprenticeship program in Wisconsin integrates classroom instruction geared to competency standards which are established by industry. This is critically important to recognize the role played by established standards defined by industry for the program. Of course, there is paid, on-the-job training directed by a skilled business mentor.

Wisconsin's youth apprenticeship program will benefit our young people, but it is just one part of a broad work force excellence strategy for the entire State, a strategy that will include new state-of-the-art counseling centers which are going to be run by the State's labor department. I think we have heard a lot of discussion this afternoon about the importance for change in the counseling of our young people, and we are going to try to have counseling centers run by the labor department instead of only by our public education system.

We are going to be providing financial incentives and technical assistance for schools and businesses that create youth apprenticeships, and greatly enhanced opportunities for those of us who are already in the world of work.

There are several ways in which the Federal Government can assist those of us in Wisconsin and Pennsylvania and Maine and Minnesota and some of the other States that are trying to develop new programs and systems to deal with the incredible challenges that are facing our country today.

The Departments of Labor and Education should work together to forge coalitions of business, labor, education, to set voluntary skill standards—the skill standards portion is essential to these education reforms that you are attempting to address in your legislation. The Federal Government should create a clearinghouse to share curricula from different youth apprenticeship programs around the country—why should each of the States start from

scratch? We found that it cost between $30,000 and $50,0000 to develop a curriculum in something like printing and again that much in finance and again that much in health.

The Department of Labor should find ways to make labor market information more relevant and attractive to a new generation of young people who have been raised on Nintendo and MTV and who are now looking for a career. And let me suggest that the role of labor market information in identifying industries and occupations that will be in demand is an essential component to obtaining the partnership and cooperation of organized labor. I think that the panel immediately preceding ours reflects the concern of training people for jobs that will exist, and I think there is an important supply and demand combination of factors that have to be addressed when we look at the jobs that we are training young people for. Labor market information from the Department of Labor must be developed and relied upon so that the careers for which we are training people are indeed those jobs which will be in demand.

Senator SIMON. Could you conclude your remarks, please?

Ms. SKORNICKA. Indeed, I will. I think it is time for Congress to be bold. The States are being bold. And let me, as my colleagues on this panel have indicated to you, indicate our willingness to be cooperative, to participate in the discussion along with the other partners and help forge a piece of legislation that will indeed be helpful, will preserve the opportunities for States to be flexible and to retain the discretion to administer and manage these pilot programs and experiments in the States, which are, after all, the laboratories for our national system.

Thank you very much.

[The prepared statement of Ms. Skornicka may be found in additional material.]

Senator SIMON. Thank you very much.

Mr. Ivry.

Mr. IVRY. Good afternoon. It is an honor to be here.

My name is Rob Ivry, and I am the senior vice president at MDRC. My comments reflect the knowledge MDRC has acquired form 19 years' experience of field-testing promising social policy initiatives designed to improve the economic well-being of disadvantaged youth.

President Clinton's recently announced youth apprenticeship initiative, the Career Pathways Act of 1993, and other related bills respond to three critical, interrelated work force quality problems: first, the dramatic decline in earnings for youth who do not go to college or do not complete college; second, the shrinkage of manufacturing jobs that do not require a formal education; and third, the lack of a coherent education and training system that leads to good-paying jobs for those who are not bound for a four-year college.

I commend you, Senator Simon, for sponsoring this important legislation to boost skill levels and improve the economic prospects of youth in this country.

Before turning to specific comments on the proposed legislation, let me briefly mention two MDRC projects that are directly related to the goals of this important proposed legislation.

First, MDRC in collaboration with Jobs for the Future is analyzing 15 promising school-to-work transition programs to examine the factors that facilitate and impede successful implementation of these programs and to document best practices. The study focuses on three critical dimensions: which students get served, how schools adapt to these programs, and the factors that influence the nature and magnitude of employer involvement.

The timing of this hearing is very propitious because the first report on this project was just issued 2 days ago. It actually is a report that has examined the American experience in school-to-work programs as opposed to all the reports that have focused on the European experience.

Senator SIMON. And this report was issued by your organization?

Mr. IVRY. By our organization, yes. It is being distributed now. It just came off the presses 2 days ago. Second, MDRC is seeking to launch a comprehensive evaluation of high school career academies. Career academies represent an intersection between the school reform and school-to-work transition movements. These are schools within schools for low-achieving students in grades 10 through 12 that provide integrated, career-oriented academic instruction, internships in related industries, mentoring and small classes.

MDRC's proposed evaluation of 10 academies throughout the country will determine both the short-term effects on in-school performance measures and the program's long-term effects on labor market success.

MDRC's extensive work in the area suggests the following 10 principles to guide the development of legislation. You started the hearing mentioning six principles. It just shows that research organizations like to complicate things, and we have 10 principles. But let me quickly go through them.

First, create multiple paths to the same goal. Schools and employers should be given substantial flexibility to develop a school-to-work transition system that builds on local strengths and is tailored to local circumstances. Maintaining flexibility by allowing multiple program strategies should unleash local creativity and engender local ownership.

Second, programs should be inclusive rather than exclusive and seek to serve a broad cross-section of students.

Third, make school relevant to the real world. Programs should integrate academic and occupational learning through both school-based and work-based approaches.

Fourth, programs should take a progressive approach that includes career awareness starting as early as elementary or middle school. It is crucial to include younger students before they become discouraged, disengaged, or even drop out.

Fifth, make the curriculum relevant and set standards. The academic and work-related curriculum should be rigorous and demanding and place high expectations on students. Programs should build a solid foundation of both academic skills and work readiness skills.

Sixth, programs should include multiple post high school education and training options, including two- and four-year colleges.

Seventh, use every available tool to stimulate employer involvement. Incentives should be used to encourage and increase employer involvement, including compensation for training expenses, partial or time-limited subsidies, and tax credits.

Eighth, engage classroom teachers. It is important to cultivate and encourage teacher innovation and teamwork because teachers have the most influence in shaping students' experiences.

Ninth, involve parents. Parents can play a supportive role by providing encouragement and reinforcing student experiences during the after-school hours.

And finally, consider the developmental and support service needs of adolescents. Career pathway programs must have the capacity to link with other youth-serving agencies to address the developmental needs of young people and the situational problems that arise during nonschool hours that can quickly unravel all of the progress that can be made during the school day.

The proposed Career Pathways Act of 1993 incorporates most of these key principles and is especially commendable for promoting a menu of program options. Let me now turn to four specific recommendations on the legislation as introduced.

First, safeguards to assure access for low-achieving and low-income youth. This is a very complicated issue. Launching new ventures often involves reconciling two conflicting tensions—the pressure to be overly selective to satisfy employers and make the programs look good based on outcome-oriented performance measures, and the pressure to provide compensatory support for students with poor attendance and low achievement levels. The goal of these programs should avoid stigmatizing students while at the same time building safeguards so that they do not become exclusionary, thus shutting out low-achieving students who potentially could benefit greatly from them.

There are a number of ways to accomplish this goal without creating a means-tested criteria for individual students. One option is to require that some percentage of the demonstration sites be located in areas with high concentrations of poverty. Another option is to weight the selection criteria by defining need index.

Second, employer incentives. The potential scale of proposed career pathway programs hinges to a large degree on the magnitude and nature of employer involvement. The challenge is to both deepen and expand the involvement of employers who are currently participating in school-to-work transition initiatives and to substantially increase the number of employers. Aggressive recruitment and financial incentives may be necessary to bring more employers to the table. This is particularly true of small and midsize employers, among whom job growth in the U.S. is most concentrated yet who may not have the economies of scale to justify the expense of involvement in career pathways programs.

Third, create opportunities through the "second chance" system. It is important that out-of-school youth also have the opportunity to participate in career pathways programs since many of the same principles that apply to in-school youth can also apply to returning dropouts who enroll in alternative programs.

And finally, it is important to remember that the rationale for creating a career pathways system is based on theoretical suppo-

sition rather than hard evidence on what strategies are effective in helping young people succeed in the labor market. While the evaluation of high school career academies which MDRC hopes to launch should provide more definitive information on this approach, the legislation should authorize field tests of other approaches so that the future policy development and legislation can be guided by facts rather than speculation.

Thank you very much.

[The prepared statement of Mr. Ivry may be found in additional material.]

Senator SIMON. Thank you.

Mary Gonzales Koenig, we welcome you back here.

Ms. KOENIG. Senator Simon, I thank you for your leadership and for the opportunity to support this important legislative effort.

Over the last 20 years in the United States, there has been an increasing gap in earnings between the top 30 percent and the bottom 70 percent of wage earners. In the metropolitan Chicago area during the 1980's, average earnings per worker declined as a consequence of the restructuring of the local employment base. Most of the employment gain occurred in industries with lower than average pay levels, while most of the employment loss occurred in higher-paying industries.

A much larger proportion of the job base is now located at the extremes of the average pay range than a decade ago. As Richard Coniff wrote in a 1991 article in National Geographic magazine entitled, "Chicago: Welcome to the Neighborhood," "Where manufacturing provided 36 percent of all employment as recently as 1960, it accounts for only one job in five now. Instead, jobs in banking, insurance and other aspects of finance have opened for the middle class; those whose lack of education would once have restricted them to factory work must now resort to jobs in less lucrative service industries. The Chicago that Sandburg called' Tool Maker, Stacker of Wheat,' is increasingly the city of the broker and the data processor on the one hand and the hotel maid on the other."

The effects of this economic situation fall particularly hard on those young persons attempting to make the transition from secondary school to work, trying to establish themselves in the labor market full-time. In many cases, they have little to offer employers in the way of work experience, while their academic studies may not have prepared them for the functional context of the workplace.

More must be done to prepare these young people as productive members of the work force and to enhance the competitive position of the United States and the global marketplace. The proposed Career Pathways Act of 1993 is an important step forward in addressing that need.

There are two specific elements of the proposal I believe are particularly farsighted, and I would like to highlight them.

First and foremost, the Career Pathways Act positions the important activity of school-to-work transition within the mainstream of job training programs. The private industry councils across the country which guide the local delivery of activities under the Job Training Partnership Act have developed the institutional relationships and programmatic infrastructure to successfully implement the career pathway concept. Those relationships and that infra-

structure were developed with great care over a full decade of program operating experience. It would be both wasteful and expensive to ignore the hard work of these thousands of public and private sector partners at the State, county and community levels.

JTPA private industry councils are at the heart of the local partnership between business, government and the education community. Private industry councils are well-positioned to enhance the collaborative effort fundamental to the career pathways proposal.

Second, it is clear that the widespread use of computers and highspeed communications technology are rapidly changing the skills needed in the workplace. Routine, repetitive jobs are quickly giving way to high-performance work organizations in which line workers must make decisions and organize their daily activities across a broad range of tasks.

Young people won't be prepared to assume such responsibilities overnight. Training must be intensive and delivered over an extended period of time. However, young people eager to move from learning to earning won't remain in training indefinitely without an incentive. In many cases, their own financial obligations simply won't allow it. That is why the career pathways provision for work-based learning that includes paid work for students is so important.

Let me briefly illustrate for you the enthusiasm and success which greeted Chicago's pilot attempts to embark along the career pathways concept.

YES, Chicago, or Youth Employment Success, Chicago, is a school-to-work transition initiative of the city through the Mayor's Office of Employment and Training. Educators, industry and the community, including parents, join together in a career-oriented, comprehensive partnership to train young people who are in school but at risk of dropping out due to academic, personal or demographic circumstances.

Yes, Chicago involved a three-year commitment of funds to three pilot neighborhoods. In each of these, a community advisory council was set up, consisting of representatives from community-based organizations, educational institutions, service agencies, local residents, youth, neighborhood industrial and commercial businesses, city agencies, and research experts from local universities.

Comprehensive customized plans that will assist young people in overcoming obstacles to employment were completed by each of the three councils. In each case, the council was able to develop unprecedented coordination of youth training and employment with specific growth occupations directly connected to the respective neighborhoods.

At one target high school stands a state-of-the-art metalworking and fabrication laboratory equipped by the same local factories which, as part of the advisory council, planned the curriculum and have provided paid pre-apprenticeships and work to the program's graduates.

Likewise, the other two neighborhoods are completing their linkages with local employers. One of these will put together the high school in Chicago's port-of-entry Hispanic neighborhood with the vast medical center complex of hospitals and universities—an historic and previously unachievable link.

These brief examples will, I hope, demonstrate the receptiveness of the private sector and the eagerness of local residents and educators to the core elements of career pathways—partnerships, flexibility and performance.

We look forward to traveling this promising new path with you, and when you are in Chicago, I extend an invitation to tour our program on the North Side of Chicago, one of our schools, along with Mayor Daly, and work with you on this important legislation.

Senator SIMON. We thank you.

In all of your programs, to what extent is employer participation an easy thing to achieve? One of you mentioned that the employers all want higher-skilled workers. I hear this over and over again; I just met with some business executives this morning and heard it again. Is there a willingness, like in the YES, Chicago program, for employers to participate? How many people did you have participate in the YES, Chicago program? What is the potential there?

Ms. KOENIG. Are you talking about employers?

Senator SIMON. Yes.

Ms. KOENIG. We have 10 to 15 employers who consistently stick with the program, have been there, have been to the school. We have morning breakfasts at 7:30 in the morning, and they are there, and they work diligently on developing their curriculum. They are telling us that they must be part of the solution to the problem they are facing and the shortage of skilled and prepared work force in their given industry. So they are more than eager to participate and bring resources. I mean, that equipment is expensive stuff, and they were very willing to be part of that.

Senator SIMON. Ms. Skornicka.

Ms. SKORNICKA. Senator, let me comment briefly, if I could. I think that there are as many attitudes among employers as there are attitudes in the U.S. Senate.

Senator SIMON. Let's hope not quite that many, though.

Ms. SKORNICKA. I think there is a marketing challenge involved in this program. The employers that are involved in the program and have expressed an interest certainly appreciate the importance to their bottom line of having a highly-skilled work force. And there are other employers who are not quite with the program yet, and I think that an important part of what needs to be done is to help the employers of this country understand that it is in their best interest to participate, to define the skills and identify the occupations that they need to have people trained for.

There is a wide divergence in the level of understanding among employers in this country as a whole, and I think it is terrific that there are many who are leading the way who are very progressive and forward-thinking in this way, and we need to encourage more to become involved.

Senator SIMON. Mr. Link.

Mr. LINK. I would agree with my colleague here. As far as the number of employers or how we utilize them, in our programs at our institution, virtually all of our occupational programs at our institution have advisory or consultant committees. That is a critical and important portion of any of the programs that are there, and really, that's the thing that drives successful new programs.

Second, in following up a bit more on that, virtually all of the new programs that have been brought onboard that have been successful both in attracting students and placing students in high-paying, high-skilled jobs have all had some type of internship, some type of cooperative work experience, some type of job-related component that has been included as a portion and as an integral portion of that program.

The response back from the employers when you put that in is excellent. The amount of material, training, new pieces of equipment, access for instructors to be able to attend industry workshops, training situations, is immeasurable, and it is so helpful from the education standpoint.

Senator SIMON. You mentioned bringing new employers onboard. Do they volunteer? Do you go out and recruit them? How does this happen?

Mr. LINK. It really goes both ways. In one situation, when we were involved and interested in doing some work in the secretarial area and going that way, we did the background work, and we went out and sought and found employers.

In another situation, as in the case of the John Deere Company, it happened that the John Deere Company came to us and said we would like to put together a program with your institution, and what we consider to be an important component with that is the opportunity for them to work out in our dealerships and with our salespeople and so on, and really be able to tie in with us. So it really goes both ways.

Senator SIMON. Mr. Ivry.

Mr. IVRY. I think I'd like to add to that. Senator Simon, I think you've put your finger on the most salient issue in terms of whether or not these programs can achieve scale. I tend to be more cautious, I think, than my fellow panelists on whether or not employers in large numbers will really be able to meet the demand that is needed to respond to the needs of young people. I think for many programs at their early stages and are right now operating at small scale, the question is what happens when they expand and there are more kids coming through the pipeline. Will there be employers there to respond to them?

I think there are a couple of things that you may want to consider. One is greater use of business intermediary groups like chambers of commerce and third parties that can relate to employers maybe better than schools, and second, whether or not incentives are an important part of the marketing package, particularly for midsize and smaller employers where there is a fair amount of job growth.

And I think there is another tension here between attracting employers and also reaching low-end kids. Employers are going to be much more selective, and they are going to be focusing on the top end of the forgotten half. What happens to the middle part of the forgotten half if there aren't subsidies, there aren't other mechanisms to get employers to be interested in that segment of the youth population.

So I think it's a very complicated issue.

Ms. KOENIG. I think a lot of what motivates the employers also is the vested interest. We have employers who are telling us they

need new skilled young people coming to their industry. At the Benito Juares Project where we are dealing with the allied health careers, we see a tremendous need, including our own city health department, needing skilled and well-trained bilingual professionals in that area. And if you take a look at the urban areas, we are talking about filling a need where there is a tremendous gap at this point.

Senator SIMON. Mr. Ivry, you mentioned about reaching into grade schools. Is this happening anywhere that you know of?

Mr. IVRY. There actually are some programs, for instance, in Tulsa, where they have an apprenticeship program to train machinists, and it is a very well thought out program. It involves the chamber of commerce in a very significant way.

They actually set up some feeder programs in the 8th, 9th and 10th grades to begin to expose students to potential careers are machinists. Many kids don't even have the foggiest idea what that is, and there are job-shadowing opportunities that occur during the summer of 8th, 9th or 10th grade, for which they get some partial stipend. The idea is that kids will be turned on to the opportunities that are available there, and they will work harder to meet the entry requirements to get into the program.

I worry, though, that by waiting for the 11th grade, you may lose one-third of the kids—one-third of the dropouts tend to drop out before they reach the 11th grade. So it is important to try to stimulate and motivate young people at an earlier point so that they can work hard to qualify for these programs that kick in in a more significant way in the 11th grade.

Senator SIMON. Earlier witnesses referred to one of the things that my staff struggled with, and that is where do you place this—Department of Labor, Department of Education? Obviously, the two departments have to work together.

I'll ask each of you this, and you can give a very simple, direct answer: If you were to place it in one or the other, where would you place it?

Ms. KOENIG. Well, I think we are working in collaboration with education and labor.

Senator SIMON. We have to work together, but——

Ms. KOENIG. Right. I think one of the things that facilitated our involvement of employers was the tremendous investment in linkage and relationships that we have with the private sector, with the private industry councils, so that we're talking about industry that works closely with our programs, and given the research that we do to make sure that we are investing training money in occupations that are going to be there, so we don't train in obsolescence. So that the industries are there with us. So I am partial to labor.

Mr. IVRY. I'd split it not for political reasons, but because the field is too new. We don't know enough about what can achieve success, and it may be that success can be driven by school-based initiatives, which are dollars that flow through the department of education, or they could be driven by work-based initiatives, with dollars flowing through department of labor. So I'd split the money.

Ms. SKORNICKA. I think that in reinventing government, which we are all talking about today, we have to break down the tradi-

tional barriers that have driven programs, and we have to talk about strategic alliances between governmental agencies. People don't come to government with a label on them. They have a whole program.

I really think it has to be a partnership between both departments. As the secretary of labor for the State of Wisconsin, I would of course prefer labor. But I work very closely with the people in education, and I know that the secretaries here at the national level are doing likewise. I think for convenience, it probably has to be in one department, but it has to be structured in a way to require the participation of both partners.

Senator SIMON. I agree with that, but if you were to designate just one, you would designate labor, then, with the understanding that there would be a partnership?

Ms. SKORNICKA. I think that that would make sense, for a number of practical reasons, indeed.

Senator SIMON. Mr. Link?

Mr. LINK. In the opportunity to effect an educational program through an educational means, most individuals who are involved from that standpoint will probably look for leadership to come through the department of education. I think that's probably one of the most effective ways and one of the most effective conduits to reach into the educational enterprise is to come through the department of education.

As we indicated earlier, we see a very, very extensive need to tie in between the labor and the education a definite partnership, and by giving both departments a stake in it— and if that stake happens to be part of the budget, so be it—but by giving each of them a stake in it, it really would force them to work together in a very collaborative manner.

If I had to say one or the other, I would say to place it in department of education.

Mr. IVRY. Two to one.

Senator SIMON. We thank you very much.

[Additional material submitted for the record follows:]

Additional Material

Prepared Statement of Hilary Pennington

Good afternoon. It is an honor to have the opportunity to speak with you today about the school-to-work transition and the Career Pathways Act of 1993. The goals of the legislation are worthy indeed: to build partnerships between business and education that can promote school reform and provide young people with the vision and the skills to pursue high-skill, high-wage career options.

My testimony today is based on my experience working with leading programs and states around the country that are designing or implementing such apprenticeship-like programs for young people. I am the President of Jobs for the Future, a national non-profit organization that aims to improve policy and practice in the areas of workforce preparation and education reform. JFF operates a National Youth Apprenticeship Initiative, funded by the Pew Charitable Trusts, the Dewitt Wallace-Readers Digest Fund, the Lilly Endowment, and the Mott and Ford Foundations. Through this multi-year initiative, JFF is providing technical assistance, research and evaluation to 20 local programs around the country, as well as to a consortium of 20 states that we have organized to develop stronger school-to-work transition systems. We have held training programs for teachers and for program operators in work-based learning programs around the country. We have been particularly involved with the state youth apprenticeship programs of Arkansas, Maine, Pennsylvania, and Wisconsin. We have convened regional and national conferences. Thus, I bring perspective from the program, state and national levels on what it will take to improve the United States' school to work transition system.

As we are all well aware, there are many good but isolated programs in the U.S. today that help young people make the transition from school to work. What we lack as a country is a system that makes such opportunities available to any young person who needs or wants them. That is the critical challenge for us today -- as we look at the wasted resource of the 75 percent of young Americans who do not graduate from 4-year colleges. Lacking clear alternative career pathways, these young people are currently left to flounder in the labor market in low wage, dead end jobs throughout their first decade of work, while we as a nation compete against other nations who give their young people a 10-year head-start towards high skill, high wage work.

In my view, the Career Pathways Act is absolutely on target in identifying the essential elements of a new career pathways system. These essential elements, outlined in the proposed legislation, include: high academic standards; industry recognized work skills along with a high school diploma and articulation with post-secondary education; work-based learning for students of all backgrounds; innovative team teaching by teachers and work supervisors who act as coaches and mentors; integration of new career pathways with mainstream school reform

and restructuring efforts; structured, sequential activities at work and at school that build on each other to produce academic and occupational mastery; development of national industry standards through employer, labor, and training professionals' input; paid work; guidance and support for students before, during and after the program; new assessment methods; non-displacement of current workers; and adherence to civil rights and child safety guidelines.

Similarly, the Act recognizes the need for experimentation with a variety of different program models that share certain core principles about integrating academic learning and career preparation into high quality learning partnerships. These programs represent a broad spectrum of philosophies, approaches and program designs. No one model has yet emerged as "the best". Thus the bill's framework for the essential elements of a new system of work-based learning, and its name itself, "Career Pathways," represent important departures from business as usual.

Our experience in the field would suggest that as you move from the broad framework of what new career pathways should do to the nitty-gritty of what federal mechanisms are needed to make them happen, several other areas bear consideration.

I would summarize my suggestions for implementation mechanisms as follows: (1) leverage state pioneers into a national system, by means of a "rolling" grant process that allows "beginner" states to benefit from the research and development experience of pioneering states; (2) build on other school-to-work innovations to get to scale, but don't water down the "model" so much that anything goes; (3) give federal help in developing standards, curriculum, teacher development, and technical assistance; (4) bridge the outdated divisions between Education, Labor, and Commerce—career pathways and national competitiveness require new partnerships that should be reflected in the legislative vehicle and the administrative framework. Finally, don't underestimate the energy and sophistication of policymakers and practitioners at the state and local levels. The roots of a bold, new, national system to reform schools as well as to create better pathways to jobs for young, non-baccalaureate Americans are already taking hold.

Leverage state pioneers into a national system, by means of a "rolling" grant process that allows "beginner" states to benefit from the research and development experience of pioneering states. As the Career Pathways Act recognizes, we need simultaneously to develop *programs* at the local level and *systems* at the state and national level. Our work in the field tells us that there is tremendous need for such a dual focus. Federal legislation that focuses primarily on setting up demonstration programs risks seeing those programs end when the funding runs out. Conversely, federal grants that focus exclusively on "systems-building" risk having little to show for the money invested in planning.

But how these two activities are linked is important. One alternative--that of the legislation as currently written—would be to have federal money go directly to local partnerships that meet the qualifications set out in the Act, and then to have a separate grants program to enable states to plan and begin implementing systems to support such programs.

Another option would be to fund states according to their capacities, as a means of driving both local programs and a nation-wide system. This could be accomplished by implementing a "rolling" grant process that would allow

"beginner" states to benefit from the research and development experience of pioneering states. Under such a plan, in the first year, all states would receive small, formula-based planning grants for the development of career pathways strategies, linked to broader education reform and workforce development strategies. All states would then be eligible for larger, five-year implementation grants once they demonstrated how they planned to go, in essence, from program to system. But the release of these implementation grants would be staggered, with the first grants going to those 10 or 15 states that have the most highly developed career pathways systems to date. Ten or 15 more states would begin receiving funding the following year, and so on, so that later-starting states would have the benefit of the early experience of others before they began spending federal dollars. All states would eventually receive their five-year grants, once they had created a programmatic framework for system-building.

To demonstrate readiness, states would have to answer questions such as: Do they have a viable plan for scaling up from a few hundred young people to a significant portion of their school-age population? Is their plan connected to a larger strategy for education reform, perhaps including some sort of certificate of initial mastery? Are they putting in place mechanisms that will allow the credits earned by young people in work-based learning programs to be accepted by post-secondary institutions? Do they have a plan for involving industries in setting skill standards?

Build on other school-to-work innovations to get to scale, but don't water down the "model" so much that anything goes. In some sense, you can make the argument that apprenticeship-like programs for youth can only work at scale. At scale, schools can redesign the curriculum , block-schedule students, and allow teams of teachers to work together. At scale, per-student costs are reduced from those of pilot programs. And only at scale can the occupational credentials earned by student apprentices gain currency in the broader labor market. Yet getting to scale will be very difficult. Whereas in Europe, up to 70% of each age cohort participates in youth apprenticeship, here there are only a thousand or so young people anywhere in the country participating in programs of this type.

So we need to expand to reach scale. Some of that expansion could come from increasing the numbers of young people already in what have been called "youth apprenticeship" programs, but that will not be enough to get to meaningful scale within 2-3 years. [Jobs for the Future defines youth apprenticeship as a learning program for young people, age 16 and older, that combines on-the-job learning with classroom instruction, that bridges high school and post-secondary schooling, and that results in certification of mastery of work skills.] As the Act recognizes, federal money can also be used to add a structured, integrated work-based learning component into Tech Prep, career academies, and other school-to-work transition models (many of the local programs Jobs for the Future works with are already doing this).

The danger lies in watering down the "model" so much that anything goes. The criteria for an exemplary program/system outlined in the bill are well-chosen. But you may want to strengthen some components, such as the emphasis on structured work-based learning, or put in place very clear outcome standards for what you hope states and local programs will achieve. Do not repeat the experience of the 1970s with career education, in which career education was defined so broadly as to allow just about anything to qualify, leaving little to show over the long run.

There is a need for a variety of career pathways; no one model will serve every student. But we've also learned from our field work that simply adding work experience to schooling is not enough to motivate young people. What is required is high-quality work-based learning that is linked in a structured way to what kids are learning in school, leading to both occupational and educational mastery, with options of work, registered apprenticeship, or further study available upon completion.

Give federal help in developing standards, curriculum, teacher development, and technical assistance. In the same way that we need to begin thinking of teachers as "coaches", rather than lecturers, we need to think of the federal government as a facilitator, building an infrastructure for state and local achievement. Federal activity should thus be efficiently targeted toward those necessary activities that only it can do.

Professional and technical standards that are portable across the country cannot be created at the program or even the state level. Jobs for the Future suggests that a National Board of Technical and Professional Standards be created as a Congressionally-chartered but independent, private not-for-profit organization. The Board would set broad performance standards and assessments for a limited number of broad occupational clusters. Members of this body, appointed by the President, would be leaders from business, labor, secondary and post-secondary education, government, and advocacy groups. The Board's task would be to establish core standards (in key occupations), to which states could add as their particular labor market needs required (similar to the multi-state bar exam for lawyers).

Similarly, we don't need to reinvent good curriculum 50 times. In addition, development of new teacher training methods and technical assistance infrastructure would both be legitimate as federally-centered functions.

Bridge the divisions between Education, Labor, and Commerce. Finally, you should think carefully about where to house such an initiative at the federal level, legislatively as well as administratively. By definition, school-to-work career pathway programs bridge school and work. If our goal is to reform schools as well as improve transition to work, this argues for strong collaboration between the Department of Education and the Department of Labor, with joint administration of program and funds.

On the Education side, we will want a strong connection to the National Goals. On the Labor/commerce and industry side, we will want a vehicle that will have credibility with employers and attract employer support, not as a do-good program, but as an investment in their own competitiveness. Ideally, the participation of the Department of Commerce would also be involved—as was the case in Pennsylvania, where the Department of Commerce and Industry initiated the youth apprenticeship program as a direct response to industry needs.

In light of these broader objectives, which the Career Pathways Act so eloquently articulates, you may want to reconsider whether JTPA is the best vehicle for this initiative.

In closing, I would like to reiterate that the roots of a bold, new, national career pathways system are already firmly planted, and that a network of energetic and sophisticated policymakers and practitioners at the state and local levels stands ready to help you.

Thank you very much for your thoughtful attention to this critically important issue.

Prepared Statement of Gordon M. Ambach

Mr. Chairman, members of the Subcommittee, I appreciate this opportunity to speak on behalf of the Council of Chief State School Officers on S. 456, the Career Pathways Act. We commend you for taking the initiative to introduce legislation on an issue vital to the long-term quality of life for our youth, families, and communities, and to our nation's economic competitiveness -- strengthening the connection between school and employment for all students. I would like to comment on the bill as a part of an essential, nationwide development to better prepare youth for the workforce.

The United States does not have an adequate nationwide, public-private partnership for youth apprenticeships and workplace learning programs. We must develop such a system with the shared responsibilities and commitments of business, labor, and education to assure systematic access to and success in the workplace for high school graduates, whether they plan to enter the workforce immediately after graduation or choose a combined program of employment and postsecondary study.

Youth apprenticeship is one component of a system of school-to-work preparation. It has specific characteristics that include:

- a coordinated school and work-site curriculum;
- a clear and distinct work-site training program;
- clear linkages to post-secondary training, regular apprenticeship, and advanced training on the job;
- a written contract among, at least, the student, school, and employer;
- compensation to students for their work during the period of apprenticeship;
- adequate worker protection including safety and due process;
- a broadly recognized occupational credential and a guaranteed job upon completion to ensure the full commitment of employers.

Standards for entry into youth apprenticeships must assure as a pre-requisite evidence of academic competence consistent with state and national standards, interest in that occupational area, and work readiness (e.g. SCANS skills.) Students must meet employer criteria for employment as youth apprentices. Students must receive high quality education experiences before the apprenticeship, and where necessary, be provided effective, alternative approaches that result in eventual entry into the youth apprenticeship.

Federal, state, and local governments together with education, business, and labor must engage in a major effort of analysis, planning, and implementation of a new system. At the federal level, several programs now include: Vocational Technical Education, Job Training Partnership Act, Family Support Act, training through service in the armed forces, and others. They provide part of a system, but not the whole. We welcome this opportunity, Mr. Chairman, and other members of the Subcommittee, Congress, and the Administration, to join with you in establishing a system which connects school and employment for all youth.

In 1991, our Council launched a three-year initiative on *Connecting School and Employment*. I am pleased to present copies of our printed reports and information about our policy statement and related activities. We sponsored youth apprenticeship initiatives in ten states. Five of the states are receiving additional support to develop and implement the initiatives. The states are ready to act, but in this area it is imperative for the individual states to act in concert with other states and with the federal government.

European models are well-known for their systemic approach, enabling youth to know what the options are, the routes they must take to prepare for various careers and trades, and credentials and performance expectations required. Our system must allow for diversity among the states, but bring the key elements of education, training and business into enduring and reliable partnerships.

A new system of preparing youth for employment requires new money for start-up efforts, including state-level administrative support to guide the development of: industry-wide skill standards; pilot demonstration sites; new curricula for schools and work places; new student assessment measures; reformed training of teachers and work site mentors; and statewide evaluation of programs.

Federal support and leadership for the high quality, work-based learning characteristic of European-style youth apprenticeship is essential for marketing the concept of apprenticeship to American youth and their families. But, any systemic change in education which stresses the ability to obtain and retain gainful employment after high school as honorable and valuable, demands that business radically alter its role in the social contract with the school. The value of being a highly skilled worker has to be apparent to youth, in fact, to everybody. Business has for too long sent the message that front-line workers are dispensable. It pays high salaries to executives, leaving its workers undertrained and de-valued. Youth have to get a clear message from employers as well as educators that if they learn well, they will get paid well.

Youth will not flock to the earning and learning associated with youth apprenticeship if such apprenticeships are based on subminimum wage allowances, low-level skill training, and a lack of connection with school sponsorship credentials like a diploma. Our European competitors highly value youth and expect all partners-- business, labor, and education-- to support development. They know youth are worthy of significant financial resource investment. America must also make this investment in its youth, but must not disconnect youth apprenticeships from K-12 school restructuring workforce skills policies and proposals in states across the nation.

As the several initiatives for preparing youth for employment are molded into new federal policy, we urge these central provisions:

- The program must support systemwide policies and require state and local plans which link federal and state resources. These plans must be an integral part of comprehensive reform strategies which should be provided through the successor to the Neighborhood Schools Improvement Act (S. 2/ H.R. 4323) of the last Congress. Preparation for employment must be connected to the other parts of secondary education improvement programs.

- The program must provide for coordinated administration at the federal, state and local levels by education, commerce, and labor agencies. Youth apprenticeship at the state level should be administered jointly by the governor, key business and labor agencies, and chief state school officer.

- The program must assure collaboration among employers, employees, and educators to determine program design, standards, and assessment. It must provide for workforce standards on an industry-by-industry basis.

- The program must match the resources to be committed to the magnitude of the task of serving millions of American youth. This cannot be a demonstration or pilot effort, but must support systemwide change. This means substantial investment in resources for youth apprenticeship, tech-prep, and workforce learning beginning in the secondary years and continuing through regular employment.

Senator Simon, I commend you once again for introducing the Career Pathways Act. A program of federal grant support for state and local development and implementation of a school to work system is an essential component of the comprehensive national effort we must undertake. I have two recommendations on your bill and urge their acceptance by you and this Subcommittee. Both are needed to assure the legislation stimulates a state-by-state and national system which connects the existent federal and state programs and initiatives in a comprehensive, coherent fashion:

1. Provide for state administration of grants to local partnerships of education, labor, and business rather than direct application by local entities to the federal level. State responsibility and operation of the local grant program is essential to achieve both administrative feasibility for such a large number of grants and maximum leverage of the federal program on state and local funds and actions.

2. Provide for joint development and approval of any state application for planning or implementation funds by the key agencies responsible for education, labor and economic development/commerce. Full partnership and responsibility of the relevant institutional entities cannot be assured through a process which requires a state to develop an application only in "consultation" with the state agency or agencies primarily responsible for elementary, secondary, postsecondary and vocational education, or indirectly with such agencies as they participate in a State Human Resources Investment Council. If we are to bridge the gaps and make the connections between and among agencies and programs, joint responsibility and sign-off is critical.

On behalf of the chief state school officers, I thank you for this opportunity to present our views and look forward to working with you and your staff on the development of this bill and the other components of comprehensive school-to-work legislation.

PREPARED STATEMENT OF DENNIS M. SCOTT

STATEMENT BY DENNIS M. SCOTT, TECHNICAL DIRECTOR - UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA TO THE SUBCOMMITTEE ON EMPLOYMENT AND PRODUCTIVITY, U.S. SENATE, IN PUBLIC HEARINGS ON SCHOOL-TO-WORK TRANSITION PROGRAMS

MARCH 3, 1993

Good afternoon. My name is Dennis Scott. I am the Technical Director of the United Brotherhood of Carpenters and Joiners of America, a building trades union representing 550,000 members and 300 Joint Labor-Management apprenticeship programs throughout the United States.

I appreciate this opportunity to present the United Brotherhood of Carpenters' views on School-to-Work Transition and the Career Pathways Act of 1993.

In recent years, public policy makers have focused on the failure of American schools in preparing non-college bound youth with the skills and contacts needed for meaningful, productive lives and careers.[1][2][3][4]

Today, our nation is overwhelmed by social and economic problems arising from the 25 percent of our 46 million students who do not graduate from high school and from the millions of others who graduate inadequately prepared for the workforce.[5]

Many now believe that the basic flaw in the U.S. school system is its disconnection from the workplace.[6][7][8] As a result, school-to-work transition policies have become a national priority.[9]

SCHOOL-TO-WORK SOLUTIONS

Some educators and policy makers propose to solve the problem of school-to-work transition by creating new agencies: the Youth Apprenticeship Institute, for example.[10] Or, they propose programs to tie high school youths directly to employers within the community.[11] Others focus on "workplace literacy" programs.[12]

The United Brotherhood of Carpenters believes that our nation's long-established traditional apprenticeship programs, largely ignored in the rush to create new programs, offer the best opportunity to develop and test the school-to-work transition model.

The United Brotherhood of Carpenters already has established apprenticeship programs, overseen by joint labor-management committees, which are privately funded through collective bargaining.

The crucial elements of an effective school-to-work transition are already in place. What is needed is an interface between traditional apprenticeship and public education. This interface could be facilitated with funds from the Departments of Education and Labor to support school-to-work transition programs.

LINKING SCHOOL-TO-WORK WITH TRADITIONAL APPRENTICESHIP

The United Brotherhood of Carpenters is interested in working with the Departments of Education and Labor to develop programs which:

First, introduce high school students to the career opportunities of carpentry beginning in the 9th and 10th grades in order to promote a better attitude among students about construction in general, and about pursuing a career in one of the carpentry trades in particular.

Second, develop and implement math and reading programs based on the various construction trades, to measurably improve the academic performance of high school students.

Third, design and implement trade-related courses which address genuine trade skills and competencies, and focus on preparing 11th and 12th grade students for full-time apprenticeship after graduation.

Fourth, indenture 12th grade high school students to joint labor-management committees, thus allowing students to "buy into" formal apprenticeship programs with the United Brotherhood of Carpenters.

Fifth, provide mentors to train 16 and 17 year-old students on construction sites so that they can participate in limited work experience during the summer months between 11th and 12th grades, and for up to two days per week during the 12th grade school year.

Sixth, establish guidelines for minimum wages to be paid to carpentry school-to-work students while on actual job sites, and

Seventh, provide graduates of the Carpentry school-to-work program direct entry to full-time carpentry apprenticeship programs, with one year credit.

To accomplish these goals, the United Brotherhood of Carpenters Apprenticeship and Training Fund is seeking support from the Departments of Education and Labor to form an education and training consortium with leading educators and vocational instructors in several states. The consortium will develop, implement and evaluate a school-to-work transition linkage with the Carpenters National Apprenticeship Program and selected school districts during a five year demonstration project. The linkage would include preparation of basic skills standards for the carpentry crafts for integration into school-to-work programs throughout the United States. [13]

The skills standards would be built around the core competencies and foundations of the carpentry crafts required for real jobs and basic skills required for high school graduation. The consortium would target school districts with high drop-out rates in several states. The goal would be to keep students in high school through graduation, at which time they would transition into full-time apprenticeship training with credit for their school-to-work experience.

The curriculum developed by the consortium would provide required high school reading, writing, math and reasoning skills using carpentry-related content. For example, students would explore geometry skills associated with the use and understanding of the Pythagorean Theorem through roof and stair construction; reading skills could involve Material Safety Data Sheets or product assembly instructions. The students would also gain trade-related knowledge, skills, and safety instruction to prepare them for entry into the trade as full-time apprentices.

TAKING THE FIRST STEP FOR UBC SCHOOL-TO-WORK PLAN

The United Brotherhood of Carpenters Apprenticeship and Training Fund has already taken the first step in identifying key employers, labor unions, and vocational experts and educators who will work together to formulate a school-to-work transition program. With appropriate funding, this collaborative committee will focus on the following issues:

1. Establishing and documenting the need for a carpentry-based school-to-work program.
2. Researching and developing competency standards.
3. Developing trade related curricula.
4. Establishing partnerships with school districts, and
5. Developing evaluation methods.

CONCLUSION

In conclusion, world economics have changed the playing field for most American workers, and they don't know it yet. After all, education has done very little to teach young people what to look for and how to cope with the changing work environment. Most schools still follow the Taylorístic approach which advises everyone to go to college. The so-called "career counseling" that most high schools provide does little for non-college bound students. Education needs to work with Industry and Labor to develop alternative career paths which "turn on" high school students to trades or occupations which involve workplace training and for some a more appealing approach to education. The United Brotherhood of Carpenters is enthusiastic about the Career Pathways Act of 1993, and wishes to go on record as supporting it.

1. Henry, Jr.,F., and Raymond, S., "Basic Skills in the U.S. Work Force: The Contrasting Perceptions of Business, Labor and Public Education," New York: Center for Public Resources, 1983.

2. Harman, D., "Turning Illiteracy Around: An Agenda for National Action, Working Paper No. 2," New York: Business Council for Effective Literacy, 1985.

3. Ravitch, Diane, The Schools We Deserve, New York: Basic Books, 1985.

4. Bishop, John, "The Motivation Problem in American High Schools," presented at Tenth Annual Research Conference of the Association for Public Policy Analysis and Management, Seattle, Washington, October 28, 1988.

5. "Building a Quality Workforce," Washington, D. C.: U.S. Departments of Education and Labor, Washington, D. C., 1988 (ERIC No. ED 291 922).

6. Lerman, R.I., "Why America Should Develop a Youth Apprenticeship System," Policy Report No. 5, Progressive Policy Institute, Washington, D.C., March 1990.

7. "The Bottom Line: Basic Skills in the Workplace," U.S. Departments of Education and Labor, Washington, D.C., 1988 (ERIC No. ED 291 922).

8. "Building a Quality Workforce," Washington, D.C.: U.S. Departments of Labor, Education and Commerce, 1988 (ERIC No. ED 298 300).

9. America 2000, The President's America 2000 Education Strategy, Job Training 2000 Policy.

10. Lerman, R.I., "Why America Should Develop a Youth Apprenticeship System," Policy Report No. 5, Progressive Policy Institute, Washington, D.C., March 1990.

11. Levine, M., "Summary of Report: Survey of Employer Needs," Washington, D.C.: Committee for Economic Development, 1985.

12. Arlington Education and Employment Program (REEP), "Perspectives on Organizing a Workplace Literacy Program," Arlington, Va.: Arlington County Public Schools, 1989.

13. "Skills and Tasks for Jobs: A SCANS Report for America 2000," The Secretary's Commission on Achieving Necessary Skills, U.S. Department of Labor, 1992.

Prepared Statement of Leo Reddy

Mr. Chairman,

As you proceed with your work on the critical issue of industrial workforce education and training and the related issue of youth apprenticeships, I wanted to alert you to the views and recommendations of an emerging national alliance of industry and the technical education community.

On the industry side, this alliance is led by the National Coalition for Advanced Manufacturing (NACFAM). NACFAM is a non-partisan, non-profit, industry-led association seeking a public policy environment more supportive of advanced manufacturing and industrial modernization as the key to growth, jobs and competitiveness. NACFAM has 250 member organizations: 50 corporations (including several Fortune 500 companies); 175 centers of manufacturing technology extension, education, and research (making NACFAM the largest association of such centers); and 25 national trade and technical training associations, representing between them over 80,000 firms and 25,000 technical education and training institutions.

The technical education community in this alliance is led by five national associations that are also members of NACFAM: the American Association of Community Colleges (AACC), the American Vocational Association (AVA), the National Association of State Directors of Vocational Education Consortium (NASTVEC), the National Association of Technical and Industrial Education (NATIE), and the Vocational Industrial Clubs of America (VICA).

We have formed this NACFAM Technical Education Alliance to help educate the Administration, Congress and the public on what we believe to be the most effective role of the federal government in preparing America's workers for the new industrial era, characterized by rapidly advancing production technologies and a highly competitive global economy.

This Alliance is presently preparing a NACFAM Position Paper containing our detailed findings and suggestions on the future direction of federal policy. While the final version of this Position Paper is still under preparation (publication is scheduled early next month) we wanted to alert you to the growth of this Alliance and provide you with at least our preliminary recommendations. It is from this perspective that we will be examining specific legislative proposals, including the Career Pathways Act of 1993 that you recently introduced.

Mr. Chairman, before previewing our recommendations, I would like to make a few general observations.

To be globally competitive, U.S. industry has an acute and growing need for highly skilled technicians–the area of greatest occupational growth into the next century.

From industry's perspective, the nation's school system should give higher priority to preparing students for technically demanding occupations, especially as the nation's industries move to adopt advanced manufacturing technologies. As companies modernize to become more competitive, schools must also modernize to educate a more competitive workforce.

To meet this challenge, schools must ensure that a larger percentage of students graduate with core technical skills, related academic competencies, and employability skills. The most efficient, cost-effective way to increase this percentage is to improve and strengthen the existing infrastructure for technical education, already preparing millions of students, within secondary and two-year postsecondary schools.

Yet it is precisely in its support for these schools that federal education policy is the weakest. Although technical occupations will grow 33 percent from 1990 to 2005, the federal government has cut funds for technical education by 35.5 percent since 1980.

Since the 1960s, the federal government has targeted almost all of its resources in this field on discrete population groups, leaving it to state and local governments to provide technical education and training for the population as a whole. Only a small fraction of the total $75 billion federal education budget is presently going to vocational-technical education programs. Programs designed to help discrete population groups move more quickly into the mainstream school system will fail if the school system itself is deteriorating. (See attached pie charts for a picture of federal funding for vocational-technical education.)

The Clinton Administration's focus on the need to give higher federal priority to workforce skills development is encouraging. We are especially impressed that the Administration is committed to applying substantially more federal resources--up to $10 billion--to this task as part of its proposed long-term investment plan.

Mr. Chairman, I will turn now to our preliminary recommendations. Until our final Position Paper is published, these recommendations are still in draft form.

1. The most effective way for the Clinton Administration and the U.S. Congress to contribute to the development of a high-skills workforce is to *make global economic competitiveness and quality technical education the principal drivers* of federal education policy, programs and resources.

2. The Administration, in exercising its leadership in this field, should *cease making an artificial distinction between technical students and the "college bound."* In fact, students training for technical occupations typically attend two-year colleges and many go on to four-year colleges or universities. Moreover, parents and students will be less supportive of technical education programs if they perceive them as blocking the path to college.

3. With respect to preparing students for the modern industrial workforce, the federal government should *leverage the existing infrastructure* of technical education in secondary and two-year postsecondary schools. These schools should be the primary resource for developing school-to-work transition programs such as youth apprenticeships and "Tech-Prep."

4. The federal government should also act to strengthen and improve this infrastructure by increasing the funding for technical education in the nation's secondary and two-year postsecondary schools *to bring it into balance* with the amount spent on programs such as JTPA, JOBS, and Job Corps. This would mean an increase to about $4 billion annually--$2.8 billion in new funds in addition to the $1.2 billion annually available under the 1990 Carl D. Perkins Vocational and Applied Technology Education Act.

5. This additional funding could be made available for the following:

a. Tax incentives to businesses to encourage their full participation in the effort to improve technical education, by, for example, donating equipment to schools, training teachers in advanced industrial technologies, and offering paid, on-site apprenticeships to secondary and postsecondary students.

b. Joint proposals submitted to state governments by committees of industry representatives, labor leaders and educators for cooperative efforts that will serve workforce development needs. Funding of the Business-Labor-Education Partnership provisions under the Perkins Act would assist in this undertaking.

c. Program improvements in technical education including: career counseling, mentor programs, faculty retraining through teacher-employer exchanges, equipment upgrading, and integration of academic and applied learning methods. State leadership activities should also be funded to oversee the implementation of these program improvements in *all* school districts.

d. Funding of the federal portion of youth apprenticeship programs at the level proposed by the President ($1.2 billion over four years) through the existing technical education infrastructure.

e. Full funding of federal investments to modernize school facilities and equipment in all school districts, totaling $100 million in FY 94, already authorized under the Perkins Act.

f. Expansion of Tech-Prep, a four-year program consisting of two years of secondary technical education and two years of postsecondary education, from $105 million in FY 93 to $1 billion by FY 98.

g. Significant funding at the state level for curriculum development, systems to measure school performance and student outcomes, and technical assistance to help schools modernize.

6. Other initiatives that the federal government should consider as means to improve technical education include the following:

a. Organization of jobs in which students are already employed so that this work can qualify for school credit. *This would permit rapid development of a national youth apprentice program at little additional cost to either business or government.*

b. Utilization of the valuable experience being gained under existing Co-op Education programs in which hundreds of thousands of students are already enrolled.

c. Use of industry's experience in technological innovation and total quality management to help modernize school facilities, academic programs, and management practices.

d. Total integration of employability skills, which are necessary for a high-performance workforce, into technical education. Vocational-industrial student organizations should be used as a means to inculcate these skills.

e. Continuing development of voluntary skills standards in industrial occupations as an aid to the technical education community

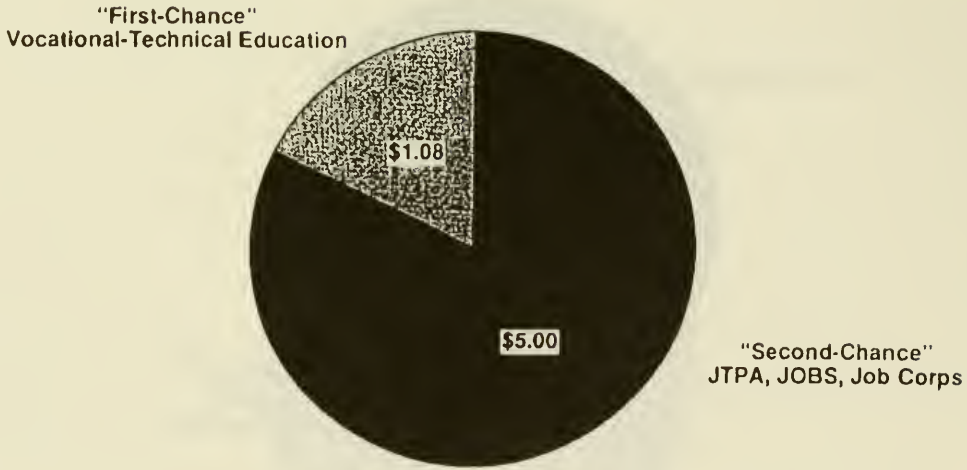
f. Amendment of the student aid program for loans to students taking single courses in technical skills areas.

g. Enhancement of the prestige of technical careers in industry and a system of awards and recognitions up to the Presidential level for achievement in technical education.

7. All of these programs and initiatives should be subject to strict standards of accountability, including the responsibility of technical educators to track job placement rates of their students.

Encl: Pie Charts on Federal Funding for Vocational-technical Education

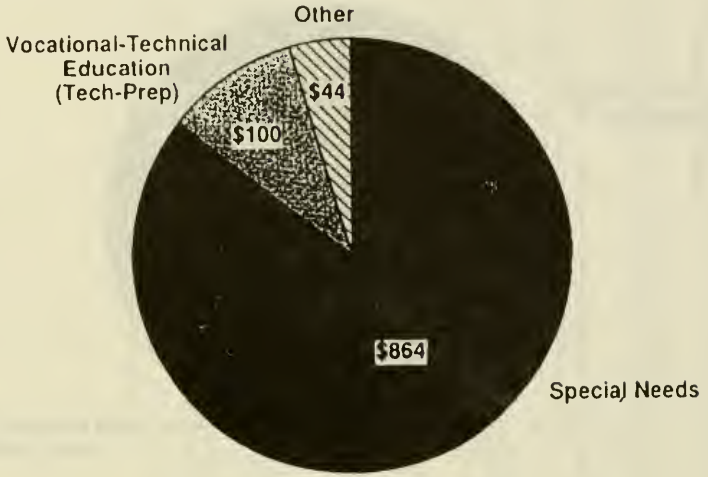
Federal Funding for Occupational Education and Job Training*
FY 1992



*In billions of dollars

Source: NACFAM

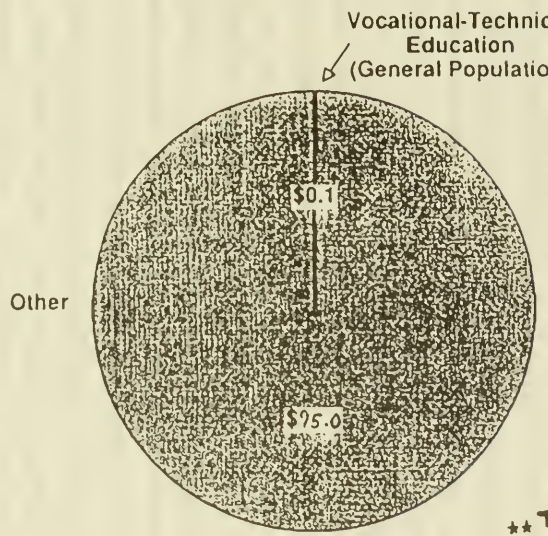
Federal Funding for "First-Chance" Vocational-Technical Education FY 1992



*In millions of dollars

Source: NACFAM

Federal Funding for Vocational-Technical Education's General Population Compared to Total Education Budget*
FY 1992



★★ Tech-Prep

*In billions of dollars

Source: NACTAM

Prepared Statement of Carol Skornicka

Mr. Chairman and members of the subcommittee, thank you for the opportunity to represent Governor Tommy Thompson and the State of Wisconsin at this hearing. I am pleased to be able to meet with you today to talk about our experience with youth apprenticeship in Wisconsin. I am also pleased that President Clinton and you, as members of the Senate Education and Labor Committee, have made clear your desire to increase the federal commitment to improving the school-to-work transition for America's high school students.

We began the youth apprenticeship program in Wisconsin in response to the needs of our economy, our businesses and most importantly, our young people. We have been fortunate in my state to have a 4.5% unemployment rate, below the national rate for the past five years. Our economy is growing and so are the demands for the development of new skills and a new kind of workplace.

As is true all across the country, business needs a highly trained workforce to stay competitive. Two years ago, Governor Thompson's Commission for a Quality Workforce found in a survey of Wisconsin employers that 60% anticipated rising skill demands for non-managerial employees over the next five years and that 42% of new jobs in the state would be high skill/high wage positions by the end of the century. Over one half of employers said that a lack of skills in the workforce hurt their competitiveness.

At the same time, young people have been looking for new options and opportunities. They want to be ready for jobs of the future; they want school to be interesting and relevant to their lives; many need to find a way into the world of work. But as we all know, many stumble on their way. Too few students finish college (less than 30% actually receive a college diploma), too few enroll in technical college, and those who begin a traditional apprenticeship program often wait until their mid-twenties to enroll. Our young people can't afford a decade of drift before they find productive work, and neither can our nation.

Last fall, Wisconsin started a youth apprenticeship program in order to give students more opportunities to learn about work, to show them a pathway to a job and to increase the number of skilled new workers. This program provided skill training in the printing

industry. This fall we plan to expand our printing program and begin another in finance. In 1994, we will expand into several new occupational areas. This is a joint effort in Wisconsin, including many partners: public education, the technical college and university systems, education, labor and business and local communities. Everyone is giving a little so that we all will gain a lot. We all gain when one of our young people finds a new horizon. I'd like to tell you about Mark Nordby, for example, a junior at West Bend High School and a printing youth apprentice. He said, "I didn't use to like school. I figured I'd rather be out working and making money. I didn't really have nowhere I was going before. Now I have something firm." Mark thinks if the program hadn't come along, he would have dropped out. Now he plans to graduate, go on to technical college and work as a printing press operator.

Our youth apprenticeship program in Wisconsin integrates classroom instruction geared to competency standards established by industry and paid on the job training directed by a skilled business mentor. For instance, in Mark Nordby's program, eleven West Bend, Wisconsin High School juniors take high school classes in the morning, one class a day at the nearby Moraine Park Technical College, and paid work in the afternoon at Serigraph printing.

Wisconsin's youth apprenticeship program will benefit our young people, but it is one part of a broad workforce excellence strategy for the entire state -- a strategy that will include new state of the art counseling centers run by the state's labor department, financial incentives and technical assistance for schools and businesses that create youth apprenticeships, and greatly enhanced training opportunities for those of us already at work.

The federal government could assist those of us in Wisconsin, and Pennsylvania, Maine, Minnesota and the other states trying new ideas with your leadership, some money, and your willingness to innovate, but not with your mandates. Here are a few things that would help:

1) The Departments of Labor and Education should pull together coalitions of business, unions and educators to identify

new occupations for youth apprenticeships, set voluntary standards for skill competencies and write curriculum frameworks.

2) The federal government should create a clearinghouse to share curricula from different youth apprenticeship programs around the country. Why should each state have to start from scratch? One youth apprenticeship curriculum costs between $30,000 and $50,000 to develop. Help us benefit from each other's work.

3) The Department of Labor should find ways to make labor market information more relevant and attractive to a new generation of young people who have been raised on Nintendo and MTV.

4) Congress should take much of the $270 million in President Clinton's budget and give grants to the Governor of each state to begin or continue youth apprenticeships.

We are all just getting started. Help us be bold. Give us the discretion to suit our different systems and hold us accountable for our progress after a year.

I appreciate the opportunity to testify before you and offer my suggestions to you as you begin your important work. On behalf of Governor Thompson, I offer Wisconsin's cooperation in this effort. This is a bipartisan issue. It is good for labor and it is good for business. It is good for the economy. It encourages our schools and colleges to provide for the majority of students who are without an adequate school-to-work transition.

Youth Apprenticeship is not the only solution to our economic ills. We need also to develop a concerted effort to increase training for our current workers, who will be, by far, the majority of our workforce in the year 2000 and beyond. We cannot successfully compete with Germany and Japan by concentrating only on our youth. But Youth Apprenticeship, combined with expanded and improved career counseling, offers a way to address two very significant needs--the need employers have for a better trained workforce and the need students have for marketable skills. The answer for America's future is not down-sizing, fewer skills and lower wages. Our answer must be building on what we already have in our schools, in our businesses, in our technical schools and in our communities--a willingness to learn, to work and to invest in the future.

Closing the Skills Gap: The Office of Workforce Excellence

The Problem:
Lack of Skills
Lack of Training

Employers' Needs. Employers have already identified workforce needs which are not being met:

- 90% of Wisconsin employers report is a shortage of skilled workers.
- 72% say lack of basic skills in their workforce has either hurt the company's competitiveness or prevented its expansion.

Without a better skilled workforce, Wisconsin businesses may be unable to compete in the world marketplace.

Students' Needs. Students who do not graduate from college enter the workforce without adequate job preparation.

- one-third of Wisconsin's technical college enrollees just out of high school need remedial or developmental courses before they can continue their education.
- 70% of Wisconsin high school graduates do not complete college.

They need skills which are not being supplied to them either at school or on-the-job

Workers' Needs. Current workers need additional training to cope with changes that will occur in the workplace in the next decade.

- 75% of the workforce for the year 2000 is already on the job.
- 80% of the jobs they will be performing do not yet exist.
- Japanese car assembly workers receive three times as much training as their American counterpart. New hires receive six times as much.

Wisconsin's Needs. To keep the its economy moving, Wisconsin needs to develop both a high-skilled workforce and high performance workplaces. Wisconsin has a head start because of its strong work ethic, good educational system and history of innovation, but needs an organized program.

A Two-Pronged Approach

The Office of Workforce Excellence will concentrate on two areas of identified need: school-to-work transition for our youth and work-to-work transition for currently-working adults. The Youth Apprenticeship Program provides the school-to-work transition so badly needed by graduates and their employers. Initiated in 1992, with printing apprentices in the Fox Cities and West Bend, the program is based on the cooperation of DILHR, the school district, technical colleges and the involved businesses, to provide school-based and work-based learning.

One Solution:
More
Youth Apprenticeship

Expansion of the Youth Apprenticeship Program. The Office will staff an expanded Youth Apprenticeship Advisory Council to coordinate implementation of the Youth Apprenticeship Program throughout the state. The Office will expand the program by:

- marketing youth apprenticeship to employers and students
- defining skill standards for occupations
- developing and approving curricula for apprentice occupations.

Workforce Standards Training Grants. The Office will provide training grants to businesses for reimbursing costs associated with on-the-job training and supervision of youth apprentices, creating incentives for business participation in the Youth Apprenticeship Program.

Cost:	$105,000 FY 94; $815,000 FY95.
Source of Funds:	GPR: 0 PR-O: $105,000 FY94
	GPR: $500,000 PR-O: $315,000 FY95

Career Counseling Centers. The Office will facilitate the creation of five youth counseling centers across the state to provide youth with career guidance, labor market information and specialized help in analyzing career options. The Office will evaluate proposals, award grants and oversee the establishment of the centers.

Cost:	$300,000 FY 94; $1,250,000 FY95
Source of Funds:	GPR: 0 PR-O: $300,000 FY94
	GPR: $750,000 PR-O: $500,000 FY95

Another Solution:
Training
Current Workers

Current Worker Training. The Office of Workforce Excellence will also engage in a variety of activities to promote training of current workers, including:

Promotion of Education and Training. The Office will initiate a publicity campaign encouraging training using public service announcements on radio and television, billboards and brochures. A speaker's bureau of local and regional businesses interested in promoting training will be developed to promote, train and mentor businesses on employee training programs.

Training Clearinghouse. The Office will create a 1-800 number clearinghouse to provide callers with information on all state training and education programs, on training assessment and counseling and on funding for training.

Training Conference. The Office will sponsor a statewide conference on employment and training including leaders from business, labor, education and government. The conference will generate high visibility and broad recognition of the importance of training and education in establishing a world-class workforce to keep and attract business to Wisconsin.

These programs are designed to encourage a partnership among business, labor and government, with each doing what it can and does do best.

Cost for Office of Workforce Excellence:	$730,800 FY94;
	$730,800 FY95
Source of Funds:	PR-O: $365,400 PR-S: $365,400 FY94 & FY95

Prepared Statement of Robert J. Ivry

Good afternoon. My name is Robert Ivry, and I am Senior Vice President at the Manpower Demonstration Research Corporation (MDRC). MDRC is a nonprofit organization with 19 years' experience developing and field-testing promising social policy initiatives designed to improve the economic well-being of disadvantaged Americans. Since MDRC was created in 1974, it has developed and studied, through evaluations and demonstrations, over three dozen programs in scores of communities in more than 40 states – spanning the education, job training, and welfare policy arenas. MDRC has an extensive history of studying programs for disadvantaged young people. This knowledge base, combined with insights gained from an ongoing study of school-to-work transition initiatives and a proposed study of High School Career Academies, can help inform future policy directions and legislative proposals, including the Career Pathways Act of 1993. I appreciate the opportunity to comment on this legislation. My testimony will center on four areas: (1) diagnosing the problems associated with workforce quality and job preparation for young people who do not plan to enroll in four-year college; (2) the lessons from past studies of youth education and employment programs and the implications for the creation of a school-to-work transition system; (3) the key underlying principles that should guide the development of policy and legislation in this area; and (4) specific recommendations to improve what is already a strong bill.

The Career Pathways Act of 1993, and other related bills that have been introduced in Congress, respond to three urgent, interrelated problems: (1) the dramatic decline in earnings for high school dropouts and young people who graduate from high school but do not go on to college; (2) the decrease in blue-collar manufacturing jobs that previously enabled individuals with 12 or fewer years of schooling to achieve a decent standard of living; and (3) the lack of a coherent education and training system that leads to good-paying jobs with career potential for those not bound for four-year college. Seen in a broader perspective, the combination of a growing number of low-skilled, poorly educated individuals entering the labor market and the expected increased demand for highly educated, skilled workers could continue to damage the United States' competitive position in the international marketplace.

Understanding the dimensions of these three problems is important in crafting the policy responses with the best potential to ameliorate them. First, there is a greater monetary value attached to having a college degree than ever before. The earnings premium for a college education over a high school education for the average 25- to 34-year-old male working full-time all year rose from a meager 13 percent additional return in 1979 to an extraordinary 43 percent by 1989. The situation for high school dropouts is even worse, and affects young African-Americans most severely. High school dropouts earn less money, have higher unemployment, and are less able to contribute to the economy than students who complete high school. According to 1990 data, only 29 percent of African-American high school dropouts between the ages of 16 and 24 are working at any job (compared to 57 percent for white dropouts), and only 55 percent of all African-American youth with high school diplomas are employed (compared to 79 percent for white high school graduates).

Second, if the labor market trends of the past 20 years continue, they are likely to exacerbate the situation. The transformation of the labor market during this period has been characterized by three features: (1) a decline in the number of good-paying, full-time manufacturing jobs, particularly in blue-collar occupations, owing to automation, exportation of work to countries with inexpensive labor costs, and increased competition internationally; (2) a rise in lower-wage, often part-time or seasonal work in the service sector for those with no post-secondary schooling; and (3) a major increase in the number of professional, technical, managerial, and sales jobs that pay very good wages but require a college diploma.

Third, unfortunately, this country generally does a poor job of educating and training young people who do not go on to college, and students who enroll in college but fail to graduate do not fare much better. Many of these students languish in vocational and general education programs ranging in quality from mediocre to poor. They may put in enough "seat" time to graduate, but many do so without obtaining a solid foundation of core academic competencies, and fewer still have the technical skills that the better-paying jobs demand. The job prospects for these youth are bleak. Without the entry-level positions for unskilled or semi-skilled workers in manufacturing, the path to careers is haphazard and unchartered.

Three major commission reports over the past six years – *Workforce 2000* in 1987, *The Forgotten Half* in 1988, and *America's Choice: High Skills or Low Wages!* in 1990 – raised public awareness of these problems and were the catalyst for proposing policy options to remedy the situation. The underlying hypothesis of all three reports is that the nation's economic future hinges on increasing the skill levels and productivity of U.S. workers, including the non-college-bound. Together these reports encouraged a redefinition of youth policy away from means-tested programs for the most disadvantaged toward more universal approaches for preparing young people for academic and occupational advancement. The basic argument is as follows: This country needs to restructure the way students are prepared for the workplace. The challenge is for schools and industry to work together to assure that all students – both those going on to college and those seeking employment after high school – meet much higher standards of achievement, standards tied to the skills in demand in the labor market. This would spur the transformation of U.S. industry into high-performance work organizations, which in turn would increase U.S. competitiveness and elevate the nation's standard of living.

While there is no clear evidence from past studies that this sequence of events would occur, the hypothesis deserves to be tested. The cost of doing nothing is simply too high. We run the risk of irreparably harming a large proportion of the next generation of young people and of damaging the U.S. prospects for long-term economic growth and prosperity. The first link in the chain is to boost the skill levels of the "forgotten half" – the many young people who do not immediately go on to four-year college. Unfortunately, the accumulated evidence from two decades of evaluations of youth employment programs for the most disadvantaged subgroup of the "forgotten half" does not offer much encouragement. The disappointments outnumber the successes, and more is known about what does not work than about what does. Although most of these studies have been conducted for disadvantaged school dropouts who are part of the "second-chance" system, the lessons are instructive for designing a school-to-work transition system. To summarize, short-term job preparation programs, work experience programs for school dropouts, and summer programs combining remediation and work experience for in-school students failed to improve the employment and earnings of disadvantaged youth above and beyond what these youth would have achieved without these interventions.

The effectiveness of skills training programs is only marginally better. The short-term impact results for out-of-school youth (particularly males) from the National Job Training Partnership Act (JTPA) Study, based on an 18-month follow-up period, are disappointing, although it is important to keep in mind that the results could change with longer-term follow-up. Also, the study was conducted before the recent enactment of the JTPA amendments, which seek to address some of the weaknesses of serving youth under the current JTPA program. Job Corps is one of the few success stories, and there is evidence from a forthcoming final report on JOBSTART – a 13-site demonstration testing a program combining basic education, occupational skills training, and support services for disadvantaged school dropouts – that investing in education and training for school dropouts does increase educational attainment levels and eventually lead to modest long-term earnings gains for some groups of young people. The body of evidence has implications for both the design and development of a school-to-work transition system such as what is being proposed in the Career Pathways Act of 1993, and for future policy directions in the second-chance system. The evidence suggests the importance of intervening early before students drop out, intervening more aggressively through more robust strategies that integrate academic and occupational instruction using both the classroom and the workplace, and intervening for a multi-year period. Regarding the second-chance system, the JOBSTART findings suggest that these results might further improve with the addition of a paid, work-based learning component – linked to classroom training in areas of labor market growth – which could reduce the front-end opportunity costs and enable students to apply the skills they learn in the classroom to actual work situations.

It is encouraging to see momentum growing on so many fronts to revamp the education and training system for the "forgotten half." President Clinton has set forth an ambitious agenda to change the life prospects of the nation's youth by proposing youth opportunity centers for dropouts, a youth apprenticeship-like system for in-school youth, and a national service trust to help finance access to higher education. The President's youth proposals are similar to work initiated by Senator Kennedy, Chairman of the full committee, and by members of Congress on both sides of the aisle, as well as on efforts being pursued by pioneering states and localities throughout the country.

I commend you, Senator Simon, for being among the leaders in this effort by proposing legislation to create flexible Career Pathways that will bring together educators, employers, unions, and other organizations to develop initiatives to address the education and employment needs of youth in the United States. Our public education system, working in tandem with the business sector, must be retooled and strengthened to provide all young people with core academic and work-readiness skills and to create multiple pathways leading to rewarding jobs and career opportunities. Particularly impressive is the bill's flexibility and willingness to consider a range of school-to-work and career pathways. This flexibility is appropriately balanced by the bill's requirements for key program activities and components such as work-based learning and the integration of academic and vocational instruction; support for early-enrollment programs for younger students; post-secondary education opportunities; academic and occupation-specific certification standards; professional development for educators; and technical assistance. Before turning to my specific comments on the proposed legislation, let me summarize some of MDRC's ongoing work in the field and what we hope to contribute to the development of a new education and training system.

MDRC is currently involved in two major projects that are directly related to the goals of this important proposed legislation. First, with support from The Commonwealth Fund and the DeWitt Wallace-Reader's Digest Fund, MDRC, in collaboration with Jobs for the Future (JFF), is analyzing 15 promising school-to-work transition programs, including youth apprenticeship programs, High School Career Academies, Tech Prep initiatives, distinctive cooperative education programs, and restructured vocational education programs. All use contextual learning approaches that combine academic instruction in school with applied employment-related training in a work setting. MDRC's study will examine the factors that facilitate and impede the successful implementation of school-to-work transition programs and will document best practices. It will focus on three critical dimensions: which students get served, how schools and classrooms adapt to these programs, and the factors influencing the nature and magnitude of employer involvement.

Second, MDRC is seeking to launch a major, multifaceted evaluation of one school-to-work transition program that shows particular promise – High School Career Academies. Career Academies are a potential prototype for the type of large-scale school restructuring effort that is needed to create a more supportive but demanding educational environment for thousands of low-achieving students. They make education more meaningful by integrating academic and career themes and by expanding career opportunities through post-secondary education linked with applied learning in the workplace. Importantly, Career Academies represent an intersection between the school reform and school-to-work transition movements, both of which are critical to creating an education system that meets the education and career preparatory needs of young people. The Academies embrace the key elements of both school-to-work transition (integration of academic and vocational instruction around an occupational theme to create applied contextual learning opportunities, work-based learning, and direct links to the workplace and additional post-secondary schooling) and school reform (school restructuring, decentralization of school-based management to the Academy level, teacher empowerment, and interdisciplinary curriculum development).

Career Academies are schools-within-schools for low-achieving students in grades 9 or 10 through 12 that provide integrated, career-oriented academic instruction, internships in related industries, mentoring, and small classes. Each Academy has a career theme (e.g., health, business, electronics), and the students in each grade cohort are block-scheduled, taking most of their classes together. These mini-school career clusters create a supportive, familylike atmosphere conducive to interdisciplinary curricula, contextual and experiential learning, exposure to a range of career opportunities within the occupational theme, and hard work in school. MDRC's proposed evaluation of 10 to 12 Career Academies throughout the country will determine both the short-term effects of the Academies on in-school performance measures (attendance, achievement, retention, and graduation rates) and, if warranted by early positive findings, the program's long-term effects on college enrollment and completion, and on employment and earnings.

The Academies have multiple goals: to improve academic achievement and school retention; to boost psychological well-being and reduce risk-taking behavior; to increase access to post-secondary education opportunities; and ultimately to improve labor market success. Because the Career Academies' incremental costs per pupil are relatively low and because several major urban school districts – including Philadelphia, Oakland, and Pasadena – have already demonstrated the model's replicability by creating multiple Academies in their district, the results from the evaluation, if positive, could lead to a large-scale expansion, transforming the education experience for thousands of students.

MDRC's many years of work on second-chance interventions to help economically disadvantaged youth and the emerging lessons of the School-to-Work Transition Project and the Career Academies Evaluation suggest the following 10 principles to guide the development of policy and to provide a framework for legislation in this area.

1. Create multiple paths to the same goal. Schools and employers should be given substantial flexibility to develop a school-to-work transition system that builds on local strengths and is tailored to local needs and circumstances. I encourage a menu of approaches including a range of programmatic strategies – such as youth apprenticeship, Tech Prep, and Career Academies – and programs customized to fit the needs of youth, schools, businesses, and the local community. Since short-term, low-intensity programs seem ineffective, the emphasis should be on providing adequate funding for high-intensity Career Pathways Programs characterized by increased interaction among students, teachers, and employers; substantial changes in core course requirements and classroom activities; and the interface of school-based and work-based learning opportunities to enrich the educational experience and to help students achieve academic and work-readiness competencies. To force school districts to comply to a single, tightly specified model would appear to fly in the face of the U.S. tradition of local autonomy in education and could mistakenly exclude many innovative programs now springing up around the nation.

2. Serve a range of youth. Programs should be inclusive rather than exclusive, and seek to serve a broad cross-section of students. Programs that are targeted exclusively to at-risk students may become stigmatized, while highly selective, elitist programs would exclude low-achieving students and further isolate them from career development opportunities.

3. Make school relevant to the real world. Programs should integrate academic and occupational learning through school-based and work-based approaches, and offer opportunities for contextual, experiential learning.

4. Build a progressive system starting in the early grades. Programs should take a progressive, sequential approach that includes career awareness and preparatory "feeder" programs starting as early as elementary or middle school. It is crucial to include younger students before they become discouraged, disengaged, or even drop out. Feeder programs can expose youth to a range of career opportunities through summer internships, job shadowing, and career exploration workshops, all of which should be geared to tighten the connection between school and work. Programs that do not start until grade 11 may miss the chance to make a difference for many students.

5. Make the curriculum relevant and set standards. The academic and work-related curriculum should be rigorous and demanding, and place high expectations on students. Programs should build a solid foundation of both academic skills (including reading, communication, computation, and decision-making skills) and work-readiness skills (including punctuality, time management, using and processing information, and interpersonal skills). Requiring high-quality standards for academic achievement is necessary to ensure that students can access a range of post-secondary options, including advanced training and four-year college degree programs. Work-readiness should be taught in school to help prepare students for productive employment. There should also be certification standards to guide the assessment of achievement and skills across many programs.

6. Assure access to post-secondary options. Programs should include multiple post-high school education and training options, including two- and four-year colleges, traditional apprenticeship programs, and other structured training programs.

7. Use every available tool to stimulate employer involvement. Employers should be encouraged to participate in a variety of capacities, including work internships, training teachers, curriculum development, mentoring, advisory committee membership, and job commitments for successful graduates. The scale of the school initiatives considered here is highly dependent on the magnitude of employer involvement. Incentives should be used to encourage and increase employer involvement, including compensation for training expenses, partial subsidy of student wages, and tax credits.

8. Engage classroom teachers. It is important to cultivate teacher buy-in because teachers work directly with students and ultimately have the most influence in shaping students' experiences in school. Approaches for building teacher support include decentralizing school-based management, providing opportunities for teachers to work in industry during the summer, creating a common preparation period for teachers to plan interdisciplinary projects, and hiring teachers for planning and professional development over the summer.

9. Involve parents. Programs often underestimate the importance of involving parents. Parents generally have high aspirations for their children and are wary about the creation of new programs that they may perceive to be "second tier" or repackaged tracking, foreclosing the opportunity to pursue post-secondary education. Building a broad base of support among civic leaders, educators, business partners, community leaders, and parents can be an extremely worthwhile investment to delineate goals and expectations and to avoid misperceptions. Parents can play a supportive role by reinforcing student experiences in the classroom and workplace and by monitoring homework assignments. Oftentimes, parents and students alike need to be educated about the changing world of work to equip them to make informed career and life choices.

10. Consider the developmental and support service needs of adolescents. For many students -- particularly those suffering from psychological distress, emotional deprivation, and low self-esteem -- the combination of applied academics and work-based learning may not be enough to increase motivation, improve academic performance, and raise skill levels. Educators and business partners must be more cognizant of the developmental needs of young people and the environmental and situational problems during nonschool hours that can quickly unravel all of the progress made during the school day. Trained professionals should be available to handle these problems or refer students to the most appropriate social service agency.

Finally, the school-to-work transition and school restructuring movements should not proceed down separate paths. Opportunities should be pursued to fuse the movements to realize the best that each has to offer. As mentioned earlier, Career Academies are an example of the convergence of school reform and school-to-work transition approaches, holding the promise of school and employment success for students who might otherwise drop out. Career Academies restructure schools into smaller, more intimate schools-within-schools organized around a career theme. The academic and vocational curriculum is integrated around the career theme, and includes contextual and work-based learning. Most decision-making is decentralized to the teacher level. Teachers have common preparatory periods to plan interdisciplinary projects and to discuss student progress.

The proposed Career Pathways Act of 1993 incorporates many of these key principles, and is especially commendable for maintaining flexibility with regard to the range of programmatic options that could qualify as a Career Pathways Program. This legislation appreciates that there are multiple paths to the same goal, and allowing a variety of program types to qualify as demonstration sites only strengthens its intent. When setting out to select 15 promising programs as case study sites for its School-to-Work Transition Project, MDRC quickly learned that most of the innovative initiatives across the country do not fit neat definitions of "school-to-work transition" models. Rather, the best programs adapt to take advantage of local resources and needs, piecing together student interests, organizational structures, curricula, and employer contributions that best fit with local circumstances. Maintaining flexibility by allowing multiple program structures will unleash local creativity, engender local ownership, and ensure that Career Pathways Programs provide a range of options for schools, employers, and, ultimately, students. Encouraging a range of program designs could also help ensure that all types of students -- particularly low-achieving students who desperately need career exposure and an opportunity to see the pay-off of working hard in school -- have access to Career Pathways Programs. Let me turn now to some specific comments on the legislation as introduced, beginning with the important issue of access for all students, particularly low-achieving and low-income youth, to Career Pathways Programs.

1. Safeguards to assure access for low-achieving and low-income youth. This is admittedly a tricky and complicated issue. Launching new ventures often involves reconciling two conflicting tensions -- the pressure to "cream" to satisfy employers and to make the program look good based on outcome-oriented performance measures, and the pressure to provide compensatory support for students with poor attendance and low achievement levels. In education, in particular, there is the fear that new programs admitting lower-achieving or economically disadvantaged students could be labeled or stigmatized by parents and students. There are also questions about whether employers will accept economically and educationally disadvantaged students into their workplaces, and whether

low-achieving students can handle rigorous academic and technical coursework. Yet many of these initiatives provide exactly the support and alternative approaches to learning that many low-achieving students need to spark their interest, motivate them to work harder, and reach their true potential.

The goal of these programs should be to avoid stigmatizing students, while at the same time building safeguards so that they do not become exclusionary, thus shutting out low-achieving students who potentially could benefit greatly from them. There are a number of ways to accomplish this goal. One option is to require that some percentage (I would argue for at least half) of the demonstration sites be located in areas with high rates of unemployment and poverty, concentrations of Chapter 1 eligible students, large numbers of students eligible for free or reduced-price school lunches, or other needs-based measures. Individual eligibility criteria would not be based on need; all students in these catchment areas would qualify for the program. Another option is to weight the selection criteria by a defined need index to allow for enhanced consideration of sites serving substantial numbers of low-achieving and disadvantaged students. At the very least, the legislation should assure that a significant number of sites are selected in areas with concentrated youth unemployment and poverty, and that individual programs are open to a broad range of students.

2. Employer incentives. Based on field interviews at the study sites for MDRC's two evaluations discussed above, and the experience of other researchers, I believe that the potential scale of the proposed Career Pathways Programs hinges to a large degree on the magnitude and nature of employer involvement. The challenge is to both deepen and expand the involvement of employers who are currently participating in school-to-work transition initiatives, and to substantially increase the number of partnership employers. Aggressive recruitment and financial incentives may be necessary to bring more employers to the table. This is particularly true of small and midsize employers, among whom job growth in the United States is most concentrated, yet who may not have the economies of scale to justify the expense of involvement in Career Pathways Programs. I suggest broadening the legislation's list of allowable activities to include time for school staff and local business intermediaries to recruit employers, and to provide for time-limited subsidies, tax relief, and/or compensation to employers for training and supervisory costs and the costs of coordination with the schools around an integrated curriculum. This should both maximize employer involvement and increase receptivity to working with low-achieving students, for whom the training costs are likely to be higher.

MDRC's evaluation of the Department of Labor's Youth Incentive Entitlement Pilot Projects (YIEPP) Demonstration -- a test of guaranteeing jobs to disadvantaged youth conditional on school enrollment and attendance -- showed that subsidies can be a powerful inducement to attract private employers to participate. Fifty-five percent of the worksites for YIEPP were private businesses, and 20 percent of all the hours worked by the 76,000 participating youth were in the private sector. In the Baltimore site, for example, a large percentage of employers said they would not have participated without the initial subsidy. Strikingly, once youth were on the job, employers often converted the subsidized youth positions to unsubsidized positions, although there was no requirement to do so. MDRC has seen other examples in its work of the value of up-front employer subsidies. In an innovative use of JTPA funding, co-op students in some school-to-work transition programs are paid initially through local PIC (Private Industry Council) funds (employers who supervise the interning students are certified as PIC trainers) until regular, part-time positions become available. This arrangement relieves employers of the responsibility of paying students while they are in training, while ensuring that experienced students are first in line when positions do become available. In other words, the initial subsidy can encourage employers to participate and provide access to private-sector jobs for youth, and over time many employers see the benefits of paying the wages themselves. Testing Career Pathways with and without subsidies or other forms of employer compensation could enrich our understanding of how to motivate employers to participate in such initiatives. Since the evidence of the effects of employer incentives is still largely anecdotal, I encourage experimentation with a range of incentives.

3. Grades covered. I suggest adding an explicit statement that eligible programs include students starting in grades 9 or 10 (or even in the middle school grades) and continue through grade 12 or a two-year or four-year post-secondary program. Early career exploration and counseling services empower students and their families to make knowledgeable career and life choices with a full understanding of program options and requirements. Such a statement would send a clear message that programs should start early enough to make a real difference in students' education. As you know, many students lose confidence in their ability to succeed in school by the time they reach the 10th or 11th grade. It is crucial to give these students the chance for new kinds of learning and

success by including them in Career Pathways. Grade 11 may be too late for many students, since past studies indicate that about one-third of all 18- to 24-year-old dropouts left school prior to completing the 10th grade.

4. Promoting involvement of national and local private-sector intermediaries. Since employer participation is the linchpin to the potential scale of the school-to-work transition movement, all available tools for involving employers should be used. In addition to financial incentives, another possible lever to expand employer participation is through the involvement of business intermediaries at both the national and local levels. Private-sector intermediaries may be more effective in marketing participation to employers than schools or local governments. Business intermediaries' involvement could be promoted at the national level through grants to local Chambers of Commerce, trade associations, or unions for the purposes of setting industrywide standards, promoting curriculum development, and encouraging their local affiliates to promote the movement and engage local employers in it. I am very impressed with how the Craftsmanship 2000 Program in Tulsa was spearheaded by the local Chamber of Commerce and eight local employers to respond to the shortage of skilled machinists. Another example of a business intermediary that has led program development is the Boston PIC, which created and supervises the operation of Boston ProTech, a health-focused youth apprenticeship program involving a number of Boston high schools and hospitals. Similarly, independent, third-party intermediary groups are playing an important role in the development and implementation of a number of other school-to-work transition initiatives. Many Tech Prep programs in particular form independent organizations (consortia) that link multiple school districts, area colleges, and industry representatives. Within this framework, Tech Prep programs often rely heavily on local consortia staff to act as liaisons between employers and school staff, rather than leaving all of the development activities to school staff and employer representatives who donnte free time and/or are released from their regular job for small periods of time to work on the school-to-work transition initiative. Including as demonstration sites several employer-led initiatives and programs that rely on independent, third-party intermediary groups would provide an opportunity to gain insight into this method of operation. It may also be useful to include provisions in the final legislation for a federal and state role in fostering employer buy-in and research and demonstration efforts.

5. Matching rate. In general, requiring a local match is a good way to ensure local buy-in and boost program funding. However, there are pros and cons regarding the rate at which local programs should be required to match federal funds. If the federal match is too high, sites run the risk of becoming dependent on federal dollars and may encounter severe problems building long-term institutional support with local funding when demonstration funding is withdrawn. If the rate is too low, there may not be enough incentive to bring all the partners to the table. I suggest increasing the local match requirement to 40 percent, and requiring that local funds be paid in cash rather than in kind, which would be a clear demonstration of local commitment. At the same time, I recommend broadening the use of allowable match funds to include other federal funds such as JTPA, Carl Perkins, and JOBS (Job Opportunities and Basic Skills Training Program) funding. The use of JTPA, JOBS, and other needs-based funding as local match would also help promote program access for economically disadvantaged students. It is also advisable to keep the match requirement the same for the first three years. A consistent match requirement would enable the local partnerships to mobilize and concentrate their energy on building sound programs rather than scrambling for replacement dollars to compensate for reductions in demonstration funding each year. Reducing demonstration funding prematurely can also work at cross-purposes to fostering local partnerships, since cutbacks can lead to divisiveness among the local partners, depending on how cuts are made.

6. Second-chance system. It is important that out-of-school youth also have the opportunity to participate in Career Pathways Programs, since many of the same principles that apply to in-school youth can also apply to returning dropouts who enroll in alternative education programs. It is conceivable that Career Pathways Programs could be created for returning dropouts through partnerships involving community-based organizations, alternative or adult schools, community colleges, and participating employers. The proposed legislation seems to suggest that such youth could be covered, by specifying as eligible those programs that serve out-of-school youth and dropouts under parts B and C of Title II of the Job Training Partnership Act.

As mentioned earlier, the long-term JOBSTART results suggest that adding a paid, work-based learning component to an education and training program for school dropouts has the potential to boost skill levels and increase earnings, particularly if the training is oriented to labor market needs and if the work experience affords participants an opportunity to apply the skills learned in the classroom to actual work situations.

7. Provisions for experimentation and knowledge development. It is important to remember that the rationale for creating a Career Pathways system is based on theoretical supposition rather than hard evidence about what strategies are effective in helping young people succeed in the labor market. While the evaluation of High School Career Academies, which MDRC hopes to launch, should provide more definitive information on this approach, the legislation should authorize experimentation and field tests of other approaches so that future policy development and legislative initiatives can be guided by facts rather than speculation. The legislation should capitalize on the learning opportunities offered by testing the effectiveness of various Career Pathways approaches.

In conclusion, the commitment of the Clinton administration and Congress to radically alter the nation's system for educating and preparing young people for work is laudable and comes not a moment too soon. Passing legislation such as the Career Pathways Act of 1993 is an important first step. It sends a powerful signal to the system that change is needed, and provides resources to stimulate action. However, the major challenge will be in implementation and moving beyond business as usual. Will schools adapt and transform classrooms into dynamic learning environments? Will business partners come forward in large numbers and commit to sharing in the training of young people through paid, work-based learning positions? Will the new system absorb low-achieving students, and will students work harder because they see the connection between what they learn in the classroom and what is required in the workplace? Will students achieve academic and technical competencies? And, most important, will young people be able to acquire good-paying jobs and achieve a reasonable standard of living? The answers to these questions are in front of us, and the fate of the school-to-work transition movement, the economic well-being of the next generation, and the economic future of the country hinge on them.

PREPARED STATEMENT OF JILL MILLER

Mr. Chairman, on behalf of the Coalition on Women and Job Training, I would like to commend you and Senator Wofford for introducing the Career Pathways Act of 1993. The Career Pathways Act will foster important partnerships between employers and schools and help provide students with the skills and preparation they need to be successful in the work force.

The Coalition on Women and Job Training is comprised of women's, education, employment and training, and labor organizations. We represent millions of women who are working and/or are in need of employment and training services. We also represent professionals throughout the United States who have years of experience in providing employment and training services for women. The Coalition works to ensure that the federal employment and training system meets the specific needs of women and girls, and we are pleased to support the Career Pathways Act.

We would especially like to commend the inclusion of specific provisions regarding non-traditional occupations for girls. Non-traditional occupations are an important link in breaking the cycle of low wages and gender-based occupational segregation for women. Yet, few girls pursue education and training in non-traditional occupations. They often lack exposure to and informal preparation in non-traditional occupations, do not have female role models and in some cases may be actively discouraged from pursuing interests in these areas. In fact, the small proportion of women working in non-traditional occupations -- about nine percent -- has remained virtually unchanged in two decades. The Career Pathways Act includes a number of provisions that will encourage many young girls to consider and pursue non-traditional occupations.

The importance of specific provisions to ensure that girls participate fully in all training opportunities can be found in the lessons of apprenticeships. While apprenticeships ought to be an important vehicle for matching women and girls with the training needed for skilled employment, especially in non-traditional occupations, the current apprenticeship system serves only a fraction of the women and girls who would be interested in these training opportunities. Moreover, almost two-thirds of women in apprenticeships (63%) are

3 9999 05982 519 8

concentrated in the occupations with the lowest earnings among apprenticeable trades. In two occupations, cosmetology and computer operation, women are the majority of apprentices.

Most women and girls are unfamiliar with nontraditional jobs and the apprenticeship system. When no proactive efforts are made to eliminate the cultural conditioning of females, guidance counselors, unions and employers, girls choose or are steered into traditionally female apprenticeships. Females who do choose non-traditional career paths must also receive support from peers to endure the isolation and harassment they are likely to face.

The Career Pathways Act offers a comprehensive approach to encouraging girls to pursue non-traditional occupations. It provides for outreach, career counseling, mentoring and other requirements to ensure that girls participate fully in a range of occupations. In addition, the Career Pathways Act provides for training and orientation for some partnership members -- teachers, counselors, employers -- regarding non-traditional occupations for girls.

We would also like to highlight the importance of support services such as child care and transportation to ensuring the participation of girls and young women. The history of job training programs is clear that when these services are not available, females often have lower participation and retention rates. We urge you to include measures that would ensure that no one is unable to participate in a Career Pathways Program because of a lack of support services.

Another important component of the Career Pathways Act is the integration of basic and advanced academic and workplace skills. As technology rapidly changes in the workplace, the skills required of employees have become more extensive. Rather than being isolated experts in narrowly defined fields, successful workers must become team participants. They must be capable of understanding many different types of information and must be able to use that information to solve problems and make decisions with co-workers. In order to ensure that women can compete in the work force and support their families, education and training programs must provide basic and advanced academic skills, competencies in all aspects of the industry they are preparing to enter, and a range of pre-vocational services.

Integration of academic and workplace skills is a powerful tool to help individuals gain advanced academic competencies by showing them how academic ideas work in the real world and why they are important. In secondary education in particular, it is vital to ensuring

that the "forgotten half" receive the preparation they need to be a successful part of our workforce. When students complete high school with basic and advanced academic skills, they can choose from a much wider array of education and work opportunities. We are pleased to see that the Career Pathways Act addresses these.

Finally, we also support the provision to require reporting by gender, race and age. It is especially vital that services provided, type and focus of job training, and outcomes are reported in this manner. The current data collection system in JTPA does not provide answers to basic questions about job training programs' ability to meet the needs of different groups that have received training for non-traditional careers. Policy and program adjustments cannot be effectively made without information at this level of detail.

We'd like to thank the members of the Subcommittee for their support of programs to address the employment and training needs of women and girls. We look forward to continuing to work with you to increase the education and training options for women and girls.

Senator SIMON. Our hearing stands adjourned.
[Whereupon, at 3:51 p.m., the subcommittee adjourned.]

○

66-734 (100)

ISBN 0-16-040716-8